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BOOK OF ABSTRACTS

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Professional organization of the medical doctors

Technical editor:
Dr Onur Dika

Welcome Note

Dear esteemed colleagues and friends,

It is with great honor and enthusiasm that I welcome you to the abstract book of the **3rd International Case Report Congress**, proudly organized by the **Macedonian Medical Association**. This year, we are privileged to host not only this prestigious gathering but also the **Macedonian-Turkish Medical Symposium** and the **Symposium on Medical Education and Health Systems in Balkan Countries**, further enriching our exchange of knowledge and experience.

The Congress stands as a testament to the **collaborative spirit of the medical community**, bringing together healthcare professionals from diverse backgrounds to share **unique clinical cases, innovative approaches, and invaluable lessons**. These case reports reflect the dedication, perseverance, and expertise of medical professionals who continuously strive to improve patient care and advance medical science.

As the President of the Macedonian Medical Association, I am honored to witness the impact of this Congress in **fostering discussions, encouraging research, and strengthening international cooperation**. The knowledge shared here not only deepens our understanding of medical complexities but also inspires further advancements in clinical practice and education.

I extend my sincere appreciation to all participants, distinguished speakers, and the organizing team for their **hard work and dedication** in making this event a success. May this Congress serve as a **platform for learning, collaboration, and innovation**, ultimately contributing to the betterment of healthcare worldwide.

Welcome, and may this Congress be an inspiring and enriching experience for all.

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Content

Gynecology and Obstetrics

RADIOTHERAPY-INDUCED UTERINE CARCINOSARCOMA AFTER CHEMORADIOTHERAPY FOR CERVICAL CANCER

ALEKSANDAR SIPKA, Tijana Vasiljevic, Aljosa Mandic, Dunja Puškar, Nora Mihalek
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Introduction: Uterine carcinosarcoma (UCS), or Malignant Mixed Müllerian tumor, represents a malignant disease that accounts for up to 5% of all uterine tumors. It is characterized by rapid growth and quick lymphogenic and hematogenic spread, resulting in a poor prognosis. Radiotherapy-induced tumors are very rare and typically appear 5-10 years after radiotherapy, localized within the previous irradiated area. This case report describes a newly developed uterine carcinosarcoma in a patient treated with radiation therapy for cervical cancer.
Case: A 50-year-old patient was diagnosed with cervical squamous cell carcinoma, FIGO stage IIB, and was treated with brachytherapy and conformal radiotherapy (45Gy/25f) with chemopotentiation using Cisplatin in three cycles. Complete disease regression was confirmed radiologically. Regular oncological check-ups were conducted every 3-4 months during the first two years, every 6 months for the next two years, and then annually. Eight years after radiotherapy, during oncological follow-up, a new uterine tumor was detected radiologically. A total hysterectomy, omentectomy and peritoneal biopsies was performed. Histopathological examination confirmed uterine carcinosarcoma with a carcinomatous component originating from serous and clear cell carcinoma and a sarcomatous component originating from liposarcoma. Carcinomatous deposits were found in the peritoneum and the greater omentum, along with malignant cytology from ascitic fluid analysis. The UCS was staged as T1b Nx M1. The continuation of oncological treatment with systemic therapy is planned in near future.
Conclusion: It is important for clinicians to be aware of the potential development of radiation-induced tumors, and therefore, it is essential to carefully perform oncological follow-up, including mandatory imaging studies of the pelvis and abdomen.
Keywords: uterine carcinosarcoma, MMMT, radiation-induced tumors, cervical cancer.

SUCCESSFUL MANAGEMENT OF CAESAREAN SCAR PREGNANCY

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Objective: To present a case of successful medical management of a Caesarean scar pregnancy (CSP), a rare but increasingly reported form of ectopic pregnancy due to rising Caesarean section rates.

Case Report: A 39-year-old woman presented with vaginal bleeding after two months of amenorrhea and a positive pregnancy test. She had a history of one previous Caesarean delivery and an incomplete abortion requiring uterine revision. Transvaginal ultrasound confirmed an ectopic gestational sac with a positive heartbeat implanted in the Caesarean scar, with deep myometrial invasion and increased vascularity. Given the risks of uterine rupture and severe hemorrhage, treatment options were discussed with the patient, who opted for medical management. A multidose regimen of Methotrexate (50 mg on days 1, 3, and 5) was administered, followed by Mifepristone (200 mg) to terminate the pregnancy. Subsequent vacuum aspiration was performed successfully. Serum β-HCG levels declined from 47,933 mIU/mL at diagnosis to 2,438 mIU/mL before discharge, with ultrasound confirming an empty uterus and no retained tissue.

Conclusion: Early diagnosis and prompt management are essential in CSP cases to prevent life-threatening complications and preserve fertility. Systemic Methotrexate combined with Mifepristone followed by vacuum aspiration is an effective, uterus-preserving approach even in cases with embryonic cardiac activity.

Keywords: Caesarean scar pregnancy, Methotrexate, Mifepristone, vacuum aspiration, fertility preservation.

INFERIOR VERMIAN HYPOPLASIA: PRENATAL DIAGNOSIS, CLINICAL IMPLICATIONS, AND MULTIDISCIPLINARY MANAGEMENT

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Background: Inferior vermian hypoplasia (IVH) is a common fetal cerebellar anomaly that can occur in isolation or in association with other central nervous system (CNS) malformations. It is caused by chromosomal abnormalities, de novo microdeletions, metabolic disorders, or genetic mutations, such as 8q13.1-q13.2 deletion and homozygous CSPP1 mutations linked to Joubert syndrome. Prenatal diagnosis is critical for accurate counseling and management.

Objective: This case report highlights the challenges and importance of prenatal diagnosis of IVH, emphasizing the role of advanced neuro imaging techniques and genetic testing in improving fetal and neonatal outcomes.

Case Presentation: A 41-year-old woman in her 23rd gestational week (G2P1)were the ultrasound screening for fetal structural anomalies at UCOG Skopje revealed suspected cerebellar vermian hypoplasia (or agenesia). Fetal MRI confirmed vermian hypoplasia but was inconclusive due to technical limitations (MRI in the third trimester was requested but was not performed). Genetic testing, including NIPT and amniocentesis, was recommended but not performed due to parental refusal. The patient delivered at 39 weeks via third cesarean section. The neonate exhibited respiratory distress, facial asymmetry, hypotonia, hypertelorism, and microcephaly (Dd Joubert Syndrome). Postnatal MRI revealed thickened superior cerebellar peduncles and an enlarged 4th ventricle, consistent with vermian hypoplasia. Although it was noted genetic testing for Joubert syndrome, it was not carried out due to the decision of the parents. At 19 months, the child showed delayed neuromotor development with sensomotory dysfunction of sitting and standing but no cognitive impairments.

Conclusion: Prenatal diagnosis of IVH requires a multidisciplinary approach, including advanced imaging (ultrasound and MRI) and genetic testing. Early detection and counseling are essential for optimizing neonatal outcomes and guiding parental decisions. This case underscores the need for improved diagnostic protocols and family-centered care in managing congenital cerebellar anomalies.

Keywords: inferior vermian hypoplasia, prenatal diagnosis, Joubert syndrome, fetal MRI

CONSERVATIVE TREATMENT OF COEXISTING HIGH SIL AND ADENOCARCINOMA IN SITU OF THE CERVIX

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Abstract Adenocarcinoma-in-situ (AIS) of the uterine cervix is a precursor to cervical invasive adenocarcinoma and may co-exist with high-grade squamous intraepithelial lesions of the uterine cervix. Studies show that 55% of women with AIS had co-existing squamous intraepithelial neoplasia. For fertility sparing reasons, conservative treatment is considered and the patient is well informed about the follow-up. We present a case report of 31 years old patient with coexisting Squamous cell carcinoma in situ and Adenocarcinoma in situ AIS. She was referred at our hospital and underwent a cervical biopsy, endocervical sampling and HPV testing. The histopathology result showed high grade squamous intraepithelial lesion and high risk HPV18 positive. The patient was then treated with a cold knife conization. The surgery was uneventful. The histopathology report showed that it was a case of cervical squamous cell carcinoma in situ and adenocarcinoma in situ- HPV related. The patient didn`t accept hysterectomy due to incoplete reproduction and after consular examination of gynecologist and pathologist, was asked to be follow up by endocervical cytology, endocervical biopsy for histological evaluation and human papillomavirus testing every 4 months. We evaluated the effect and safety of cervical coniseation with additional imunostimulators and recurrence or progression of disease in 18 months follow up period in these women. Conservative treatment of coexisting squamous cell and adenocarcinoma in situ cervical cancer is possible with intensive follow up after conservative treatment. Intensive monitoring should preferably be done by endocervical cytology, and human papillomavirus and deviations should be subjected to further histological examination.

Key words: adenocarcinoma of the uterine cervix, squamous intraepithelial lesions, conservative treatment

SUCCESSFUL CONSERVATIVE TREATMENT OF A PATIENT WITH CESAREAN SCAR PREGNANCY

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Introduction: Scar pregnancy is a rare and potentially life-threatening condition that occurs when an embryo implants and grows within a previous cesarean section scar or other uterine scars. It is associated with an increased risk of uterine rupture, massive hemorrhage, and other complications, underscoring the importance of early detection and appropriate management strategies. Transvaginal ultrasound plays a vital role in visualizing the gestational sac within the cesarean scar and differentiating it from other types of ectopic pregnancies. Serial monitoring of serum beta-human chorionic gonadotropin (β-hCG) levels and close observation of clinical symptoms are also essential for accurate diagnosis. Several treatment options exist, including medical management with methotrexate , surgical interventions, such as dilation and curettage, or a combination of both. The choice of management depends on factors, such as the patient's hemodynamic stability, gestational age, and desire for future fertility. In cases where scar rupture occurs, emergency surgical intervention, including hysterectomy, may be necessary to ensure the mother's wellbeing.

A case presentation: We present a case of 41 years old patient with previous Caesarean section two years ago admitted on Department for urgent gynecology on our Clinic with diagnosis of ectopic scar pregnancy. Serum level of β-hCG was 114217 mIU/ml, and gestational sac was about 23 mm in diameter. After inform consultation with the patient decision was made for conservative treatment with Methotrexate (two doses of 50 mg) and intraamnial instilation of 50 mg of Methotrexate. The patient left our Clinic after one week in good condition. On control examination after one month serum level of β-hCG was 356 mIU-ml, and gestational sac with diameter of 12 mm.

Conclusion: Early diagnosis and treatment of patient with caesarean scar pregnancy are important for successful management.

Key words: scar pregnancy, treatment

SMOOTH MUSCLE TUMOR OF UNCERTAIN MALIGNANT POTENTIAL IN POSTMENOPAUSAL WOMAN

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Uterine fibroids are a type of non-cancerous tumors that affect the smooth muscles of the uterus and are often found in women of reproductive age. They can be asymptomatic and are diagnosed by clinical examination, but also symptomatic, with symptoms such as menstrual abnormalities, which can lead to iron deficiency anemia. USMT (uterine smooth muscle tumors) are divided into 5 groups according to WHO tumor classification system 2020.The most commonly used detection methods is ultrasound examination.A 49-year-old female patient in her reproductive period with 2 births and irregular bleeding every 2-3 months. She came to visit our Clinic with symptoms of prolonged menstrual bleeding. She had previously been examined by her primary gynecologist and in two consecutive examinations uterine myoma was diagnosed. The patient was examined and then hospitalized at our Clinic. Laboratory- Blood analysis showed signs of anemia, erythrocytes 3.74 x 10^12/L, hemoglobin 105 g/L), platelets 305 x 10^9/L). Urinalysis without abnormal findings. PAP smear was without cytological abnormalities. Hemostasis factors and D dimers were within normal range.Ultrasound finding: uterus with anteroposterior diameter of 44.2 mm, endometrium 3.9 mm, with a myoma on the anterior wall 58x62mm.Right ovary with normal morphology and dimensions 29.6x15.1 mm, left ovary with morphology with dimensions 23.9 x 15.1 mm. No effusion in Douglas. After the initial evaluation, an indication for surgical treatment was determined and it was planned that the patient would be operated on as soon as possible. Intraoperatively, a submucosal myoma measuring approximately 6 cm was discovered. A hysterectomy with bilateral oophorectomy was performed. Material was sent for HPA analysis. The postoperative period was without any complications. She was discharged for home treatment on the 4th day and was scheduled for a control examination after one month.The histopathological finding corresponded to a leiomyoma with bizarre nuclei.The patient was advised to contact the Institute of Radiotherapy and Oncology.

Keywords: stump myomas, fibroids,leiomyomas

INCIDENTAL FINDING OF UTERINE MALIGNANT MYOMA DURING CESAREAN SECTION: THE IMPORTANCE OF HISTOPATHOLOGICAL EXAMINATION

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Uterine myomas are common benign tumors of the female reproductive system. Although often diagnosed preoperatively, they can sometimes be discovered incidentally during obstetric surgeries, such as cesarean section. This case highlights the importance of routine histopathological analysis of excised myomas to determine their biological potential and guide further management.

A 37-year-old primiparous patient with a history of in vitro fertilization and egg donation was admitted at 37+4 weeks of gestation for elective cesarean section. The procedure was performed without complications, but an incidental finding of multiple uterine myomas was noted intraoperatively. The excised myomatous nodules were sent for histopathological evaluation.

Microscopic analysis revealed a smooth muscle tumor of uncertain malignant potential (STUMP) with areas of necrosis, mild atypia, and low mitotic activity. STUMP represents a rare category of uterine smooth muscle tumors that exhibit histological features between benign leiomyomas and malignant leiomyosarcomas. Due to their unpredictable biological behavior, patients diagnosed with STUMP require close follow-up, as there is a risk of recurrence and, in some cases, progression to malignancy.

Given the uncertain prognosis of STUMP, further diagnostic imaging and a multidisciplinary approach were recommended. A follow-up MRI and subsequent histopathological findings confirmed the presence of chronic granulomatous inflammation and additional subserous leiomyomas. In light of these results and the potential risk of disease progression, the patient underwent a hysterectomy as a definitive treatment.

This case underscores the critical role of histopathological analysis in incidental uterine myomas, as some may harbor atypical features requiring close monitoring or additional treatment. Early detection and proper classification of myomas can significantly impact patient prognosis, ensuring timely surgical and therapeutic interventions. In cases where STUMP is diagnosed, hysterectomy may be considered to eliminate the risk of recurrence or malignant transformation, providing the best long-term outcome for the patient.

Keywords: Uterine myoma, STUMP, histopathological examination, leiomyoma, leiomyosarcoma, incidental tumor.

PRENATAL DIAGNOSIS OF SACROCOCCYGEAL TERATOMA: A CASE REPORT

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Sacrococcygeal teratoma (SCT) is a rare congenital tumor originating from the coccyx, with an incidence of approximately 1 in 35,000–40,000 live births. Early prenatal detection is crucial for prognosis and management. Ultrasound is the primary tool for identifying fetal anomalies, assessing tumor characteristics, and detecting potential complications such as high-output cardiac failure, polyhydramnios, and hydrops.

A 38-year-old gravida VI patient underwent a routine fetal anomaly scan, which revealed a sacrococcygeal mass measuring 72×50 mm. The lesion had both solid and cystic components, consistent with SCT. Fetal biometry was appropriate for gestational age, and no other structural anomalies were observed.

A follow-up ultrasound seven days later demonstrated rapid tumor growth, now measuring 80×100 mm. Doppler assessment showed internal vascularization, raising concerns about fetal hemodynamic strain. The potential risks, including fetal hydrops, preterm labor, and perinatal complications, were discussed in a multidisciplinary setting. Given the tumor's progression and associated risks, the patient was counseled on prognosis and available management options. After careful consideration, the patient opted for medical pregnancy termination.

A medical induction protocol was initiated, and after two days, fetal expulsion occurred, followed by placental expulsion several hours later. Both specimens were sent for pathological examination. Post-procedure transvaginal ultrasound (TVUS) confirmed appropriate uterine involution with an anteroposterior diameter of 83 mm and an endometrial thickness of 11 mm. The patient was discharged in stable condition with follow-up recommendations.

This case highlights the vital role of ultrasound in the early detection and monitoring of sacrococcygeal teratomas. Timely diagnosis enables appropriate counseling, multidisciplinary planning, and individualized decision-making. Advances in fetal imaging improve the ability to assess tumor characteristics, associated risks, and optimal management strategies for affected pregnancies.

Keywords: Sacrococcygeal teratoma, prenatal diagnosis, fetal ultrasound, congenital tumor, high-output cardiac failure, fetal anomaly, pregnancy termination.

SUCCESSFUL MANAGEMENT OF CHRONIC LYMPHOCYTIC LEUKEMIA IN A TWIN PREGNANCY CONCEIVED VIA IN VITRO FERTILIZATION

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Chronic lymphocytic leukemia (CLL) is the most common leukemia in the Western world, with a median age of diagnosis of 72 years. Despite its prevalence, CLL is rare in women under 40, accounting for only 2% of cases, and its occurrence during pregnancy is even more uncommon, with an estimated incidence of 1 in 75,000 pregnancies. This rarity is primarily attributed to the typical presentation of CLL in older populations.

We report a case of a 42-year-old woman diagnosed with CLL during pregnancy, following a one-year history of persistent lymphocytosis. Clinical symptoms included ecchymoses and prolonged upper respiratory infections, indicative of immune dysregulation. The patient conceived through her third in vitro fertilization (IVF) attempt, which successfully resulted in a twin pregnancy. Her obstetric history included two unsuccessful IVF attempts, one ectopic pregnancy, and one miscarriage.

Management involved a multidisciplinary team, including a hematologist, gynecologist, and transfusion specialist, with frequent monitoring of hematological parameters. Clexane was administered for anticoagulation. Despite the complexities of her condition, she maintained stable hematological indices throughout the pregnancy without significant complications, such as infections, autoimmune phenomena, or hypertensive disorders.

At 37 weeks of gestation, the patient delivered healthy dichorionic twins via cesarean section due to her age and poor obstetric history. The twins included a girl weighing 2380 g and measuring 46 cm, with APGAR scores of 8/9, and a boy weighing 2520 g and measuring 47 cm, with APGAR scores of 8/9. Both neonates had normal vital parameters and required no medical intervention postpartum.

This case demonstrates the feasibility of favorable outcomes for both mother and neonates in pregnancies complicated by CLL, emphasizing the importance of meticulous monitoring and individualized care. It also contributes to the limited literature on CLL in pregnancy, supporting the need for evidence-based clinical guidelines.

Keywords: Chronic lymphocytic leukemia (CLL), In vitro fertilization (IVF), Hematological disorders in pregnancy

VELAMENTOUS INSERTION OF THE UMBILICAL CORD AS A RARE INDICATION FOR EMERGENCY CESAREAN SECTION

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Velamentous insertion of the umbilical cord is an abnormal insertion in which the umbilical blood vessels do not enter the placenta directly, but enter between the amnion and chorion before reaching the placenta. The incidence of this abnormality is 1% and is associated with obstetric complications.

We present a case of a 33-year-old patient with a second pregnancy. Ultrasound screenings in the first and second trimesters with normal findings. She was hospitalized at 39.2 weeks of gestation due to rupture of the amniotic membranes and leakage of milky amniotic fluid. Ultrasound detected the presence of a fetus in cephalic presentation, with biometry appropriate for gestational age, a reduced amount of amniotic fluid and a placenta localized on the anterior wall of the uterus. All Non Stress Tests were reactive, with a normal basal heart rate, but with sporadic atypical variable decelerations and absent uterine activity. We decided to terminate the pregnancy with an emergency cesarean section, resulting with a delivery of a live female fetus 3150gr/49cm, Apgar score of 6/7/7. Intraoperatively, the meconium stained amniotic fluid was detected. Macroscopically, we detected a velamentous insertion of the umbilical cord, with blood vessels passing about 10cm between the membranes before penetrating the placenta. The newborn was aspirated in the operating room and ventilated with AMBU. Vesicular breathing with wet cracles was detected, heart rate 130/min, decreased muscle tone, normal reflexes, saturation 96%, hematological and biochemical parameters within reference rangess. Ultrasonography of the CNS found a mild periventricular hyperechogenicity. Discharged in good condition with a weight of 3010 grams.

The aim of this study is to emphasize the importance of detecting the umbilical cord insertion site during routine ultrasonographic examination, in order to identify pregnancies with velamentous insertion of the umbilical cord and the risk of obstetric complications.

Keywords: umbilical cord, velamentous insertion, atypical variable decelerations, meconium stained amniotic fluid.

CASE OF A PATIENT WITH POSTPARTUM ECLAMPSIA

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Gestational hypertension is hypertension without proteinuria or other signs/symptoms of preeclampsia that develops after 20 weeks of gestation in a patient with a previously normal blood pressure. Development of proteinuria upgrades the diagnosis to preeclampsia. Even without proteinuria, patients who develop severe hypertension or other features of severe disease are managed in the same way as those with preeclampsia with severe features. We present a case of a 24-year-old primigravida, with a regularly controlled pregnancy, admitted in the delivery room. Three weeks before admission, the patient was diagnosed with pregnancy-induced hypertension, which was controlled with antihypertensive therapy Methyl Dopa 2x250mg. A blood count was within reference limits. She delivered spontaneously 3 hours after admission to the hospital, male fetus 2490g/48cm. Postpartum blood pressure values: 141/117...166/116... 154/103...150/108...153/97mmHg. Seven hours after delivery, the patient suffered an eclamptic attack, with convulsions and short-term loss of consciousness. The anesthesiologist placed an oral airway, Diazepam 10mg intramuscularly and Midazolam 2mg intravenously were administered and patient was immediately transferred to intensive care, with an oxygen mask where anticonvulsant therapy was administered: Magnesium sulfate (4g intravenously in a bolus and 1g/h with an intravenous infusion) and Sol. Mannitol 20% (2x125ml). Immediately after the attack, blood pressure was 151/88 mmHg, pulse 124/minute, SpO2 98%. Laboratory findings: elevated liver enzymes (AST-37 U/L, LDH-362U/L), elevated uric acid level (413µmol/L), CRP-13.9mg/L, hypoproteinemia (total protein-58.6g/L, albumin-30g/L). An antihypertensive therapy (Methyl Dopa 4x500mg and Nifedipine 20mg) was administered, maintaining blood pressure in normal values. She also received 100ml 20% human albumin, thromboprophylactic, antibiotic, rehydration, antiemetic and analgesic therapy. Transferred to the ward after 2 days of intensive treatment, in stable condition. She was discharged after 4 days in good general condition, with a recommendation for examination by an internist and a transfusion specialist.

Keywords: gestational hypertension, preeclampsia, eclampsia, convulsions.

MULTIPLE CONGENITAL MALFORMATIONS AS AN INDICATION FOR MEDICAL ABORTION

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Congenital malformations may be isolated or multiple and represent a relevant cause of spontaneous abortion and fetal death when they are incompatible with the normal embryo-fetal development.

We present a case of a 23-year-old primigravida, with a negative personal and family history of congenital anomalies. Due to an abnormal finding on the first trimester screening (PRISCA 1), a chorionic villus sampling was performed at 14 weeks of gestation, but chromosomopathy was not detected. An ultrasound examination at 17 weeks of gestation revealed hydrocephalus and megacolon, which indicated termination of pregnancy. Induction with oxytocin was performed and the fetus and placenta were sent for autopsy. A female fetus weighing 170 grams and 16 cm long. During inspection, facial dysmorphism was detected with low-set ears (below the level of the angulus oris), the neck was short and wide, and on the back of the neck there was a hygroma measuring 0.5x2 cm. An imperforate anus was detected. In the abdominal cavity, there was a slightly distended large intestine that was passable and opened into the urinary bladder. The described malformation was in favor of a persistent cloaca, which has been confirmed histologically. Renal agenesis was also detected. Histological analysis of the remaining organs showed extramedullary hematopoiesis and congestive changes. The placenta weighed 110 grams, and the funiculus umbilicalis had a paracentral insertion. On the maternal side, there was a retroplacental hematoma and microscopically there were areas with subacute chorioamnionitis, cystically degenerated areas of the amniotic membranes, intraplacental bleeding and areas of intra and intervillous fibrinoid deposition. Additional analyses (Chromosomal Microarray Analysis) were proposed, but the patient refused.

The aim of this case presentation is to emphasize that prenatal ultrasound examination allows the detection of major fetal defects and pregnancies can be terminated if the fetus is severely affected.

Keywords: congenital malformations, ultrasound, hygroma, imperforate anus, persistent cloaca.

COINCIDENCE OF ALOBAR HOLOPROSENCEPHALY AND CHIARI I MALFORMATION: CORRELATION OF PRENATAL DIAGNOSTICS AND PATHOLOGIC FINDINGS

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Alobar holoprosencephaly is a lethal anomaly characterized by complete failure of cleavage of the prosencephalon. As a result, the cerebral hemispheres are fused and there is a single large midline fluid collection (ventricle) and absence of the corpus callosum and falx cerebri. The incidence rate is 0.49-1.2 cases per 10,000-20,000 term births. Chiari type I malformation (CM-I) is characterized by abnormally shaped cerebellar tonsils that are displaced below the level of the foramen magnum. We report a case of a 30-year-old primigravida presented to University clinic of obstetrics and gynecology for a routine obstetric ultrasound examination in third trimester. Ultrasonography revealed a single live intrauterine fetus of 27.2 weeks. A large monoventricle was noticed with centrally fused thalami and peripherally compressed cerebral parenchyma; falx cerebri and corpus callosum were completely absent; flat nose, hypothelorism and aortic stenosis was noticed; the spine, heart, limbs, placenta and umbilical cord were sonologically normal; the amniotic fluid around the fetus was normal in quantity. Amniocentesis results indicated the presence of normal male karyotype. Pregnancy termination was performed at 28.3 weeks with vaginal delivery of a dead male fetus. Fetal pathology examination showed alobar holoprosencephaly, malformation Arnold Chiari, facial dysmorhism with hypothelorismus, single nostril, completely absence of nasal bone and cartilage; stenosis et hypoplasia aortae was revealed, trunk and limbs were normal. These findings indicate that in the case of prenatal detection of a alobar holoprosencephaly, possible additional intracranial such as Chiari malformations, should also be taken into account.

Keywords: Alobar holoprosencephaly, Chiari I malformation, ultrasound, fetal pathology

SPONTANEOUS RESOLUTION OF AN UNILATERAL FETAL PLEURAL EFFUSION

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Fetal pleural effusion refers to the accumulation of fluid within the chest cavity of a developing fetus. The underlying causes of fetal pleural effusion may include genetic abnormalities, infections and cardiovascular or pulmonary conditions.

We present the successful management of a pregnancy complicated by fetal pleural effusion. The patient is a 40-year-old primigravida, presenting with a unilateral fetal pleural effusion at 20 weeks of gestation. Her medical history includes preexisting hypertension, type 2 diabetes mellitus, PCOS and chronic bronchitis. Obstetric history revealed Priska 1 test with increased risk for trisomy 21, though genetic testing results were within normal limits. Serologic testing indicated a past cytomegalovirus (CMV) infection. The patient was closely monitored and attended regular prenatal visits every two weeks.

Ultrasound imaging after seven weeks revealed significant resolution of the pleural effusion. The patient later delivered a premature healthy male infant at 32 weeks of gestation with birthweight 1200g /34cm , Apgar score 5/6, via elective cesarean section due to preeclampsia. The newborn after 54days in neonatal intensive care unit, was released home.

This case highlights the spontaneous resolution of fetal pleural effusion, demonstrating that even in the presence of underlying risk factors, favorable outcomes can occur. Ultimately, the pregnancy resulted in the successful delivery of a healthy neonate, underscoring the potential for positive outcomes even in complicated pregnancies.

Keywords: fetal pleural effusion, unilateral pleural effusion, high risk pregnancy

AN UNUSUAL PELVIC MASS

TIMOTHY GAUL
Medical Education International

Background: Leiomyosarcoma (LMS) is a rare and aggressive malignancy arising from smooth muscle tissue, with pelvic LMS being an uncommon presentation in young women. This case highlights the diagnostic challenges, treatment course, and prognosis of a 25-year-old female diagnosed with pelvic leiomyosarcoma.
Case Presentation: A previously healthy 25-year-old woman with a body mass index (BMI) of 40 presented with a several-month history of increasing abdominal fullness and bloating. She denied pelvic pain, abnormal uterine bleeding, or gastrointestinal symptoms. On examination, a firm, non-tender pelvic mass was palpable. Imaging with ultrasound and MRI revealed a well-defined, heterogeneous pelvic mass measuring 20 cm, raising suspicion for a uterine fibroid or sarcoma. A biopsy confirmed high-grade leiomyosarcoma. Staging investigations showed no evidence of metastases. The patient underwent total abdominal hysterectomy with bilateral salpingectomy and tumor debulking. Histopathology revealed spindle-cell morphology with high mitotic activity, necrosis, and pleomorphic nuclei. Immunohistochemistry was positive for smooth muscle actin (SMA) and desmin, consistent with leiomyosarcoma.
Treatment & Outcome: Due to the aggressive nature of LMS, adjuvant chemotherapy with doxorubicin and ifosfamide was initiated. The patient remained under close surveillance, with no evidence of local recurrence or distant metastases during follow-up.
Conclusion: Pelvic LMS in young women is rare and often presents with nonspecific symptoms like abdominal fullness. In patients with a high BMI, tumor detection may be delayed. Early recognition, accurate diagnosis, and multimodal therapy are crucial for improving patient outcomes.
Key words: pelvic mass, BMI, leiomyosarcoma

THE RARE OF THE RAREST: ATYPICAL PLACENTAL SITE NODULE-A REVIEW OF CASE

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Atypical placental site nodules are histologically intermediate between placental site nodules and epithelioid trophoblastic tumors. An atypical placental site nodule is a rare, benign lesion that arises in the uterine wall, typically following a pregnancy. It is characterized by the presence of trophoblastic tissue that behaves abnormally, often appearing similar to placental tissue. While Atypical placental site nodules are usually asymptomatic and discovered incidentally during histopathological examination after a pregnancy, they can sometimes be associated with abnormal bleeding or other clinical signs. Little data exists to characterize these lesions and the risk of transformation from placental site nodules to epithelioid trophoblastic tumors. Recent World Health Organization criteria for distinction of Atypical placental site nodules are vague and not objectively defined.

We identified a case of a nodule at an atypical placental site in a 38-year-old patient following hysteroscopic intervention. Histopathological findings show that the immunohistochemical tumor cells are diffusely positive for CD10, Inhibin, CK7, p63, and Vimentin, with coexpression at the atypical site. The proliferation index (Ki-67) in different fragments is variable, ranging from 5-10% on average (with a hotspot of 15%). The tumor cells are negative for Estrogen, Progesterone, BhCG, and CK5/6. The patient reported one spontaneous vaginal delivery and two spontaneous abortions. The BhCG level is negative, measuring 0.4. CT and MRI scans were performed, with results showing no abnormalities. An atypical placental site nodule is a rare form of gestational trophoblastic proliferation with uncertain malignant potential. Although normal obstetric outcomes are possible, the persistence rate is high, and the definitive treatment remains hysterectomy.

Key words: atypical placental site nodule, malignant potential, hysteroscopy

UNPREDICTABLE NATURE AND OUTCOMES IN PREGNANCIES COMPLICATED WITH SLE. POSSIBILITY OF A FAVORABLE OUTCOME IN SUBSEQUENT PREGNANCIES.

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Systemic lupus erythematosus (SLE) is chronic inflammatory connective tissue disease that mainly affects women in reproductive age. This autoimmune disorder significantly impacts pregnancy outcomes. Patients with SLE are at increased risk of complications such as spontaneous abortion, intrauterine fetal demise, preterm delivery, preeclampsia, intrauterine growth restriction and neonatal lupus including congenital heart block. This case report describes a 34-year-old pregnant patient with her third pregnancy and a history of SLE, diagnosed during her second pregnancy that was complicated by fetal atrio-ventricular block of III-rd degree that required neonatal pacemaker implantation at birth. During her current pregnancy she has been closely monitored due to her previous history. The maternal autoantibody profile showed elevated levels of anti-Ro/SAA and anti-La/SSB antibodies, similar to her second pregnancy. However, fetal echocardiography at 20-28weeks of gestation showed no signs of heart block. The pregnancy progressed to full term without any serious complications. The neonate was without physical and biochemical signs of neonatal lupus. This report highlights the role of biomarkers and clinical management strategies in predicting and preventing fetal complication, as well as the variable outcomes in subsequent pregnancies. It demonstrates the complex and unpredictable nature of pregnancy in women with SLE. Although the patient had elevated anti-Ro/SSA and anti-La/SSB antibodies, her last pregnancy did not result in the expected complication of fetal AV block or neonatal lupus. This shows the high range of variability in the manifestation of neonatal lupus and congenital heart block even in pregnancies in the same women.

Keywords: SLE, pregnancy, congenital heart block

A COMPLEX FETAL CARDIAC MALFORMATION AS AN INDICATION FOR PREGNANCY TERMINATION

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Congenital cardiac disease is seen in 2–6.5 of 1000 live births and is a major cause of morbidity and mortality, with half of these cases being lethal or requiring surgical correction. Environmental, genetic and chromosomal abnormalities are believed to be causes of congenital cardiac defects, with a higher incidence among infants with affected siblings or mother.

We present a case of a 30-year-old primigravida at 23 weeks of gestation with a negative personal and familiar anamnesis for congenital malformations. Ultrasound examination showed a complex fetal cardiopathy with a dilated pulmonary artery and stenotic aorta. Labor was induced with oxytocin and a stillborn male fetus weighing 605 grams was delivered and sent to an autopsy. On external inspection, the fetus had a properly developed osteomuscular structure, without visible malformations and deformities. The main finding on autopsy was a congenital malformation of the heart, which was enlarged and dilated. On cross-section in the membranous part of the interventricular septum, a defect with a diameter of 0.4 cm was visible (ventricular septal defect - VSD), as well as a "Truncus arteriosus communis" as a single large artery leaving the base of the heart. The myocardium of the right ventricle was hypertrophied with a thickness of 0.6 cm. The remaining visceral organs were placed in the appropriate anatomical compartments, properly formed.

Prenatal ultrasound examination allows the detection of major fetal defects and pregnancy can be terminated if the fetus is severely affected. Fetal autopsy is a method of vital importance in complementing prenatal diagnosis.

Keywords: congenital cardiac disease, cardiopathy, truncus arteriosus communis, ventricular septal defect

POLYCYSTIC HORSESHOE KIDNEY WITH MEGACYSTIS AND ANHYDRAMNION AS A RARE FETAL MALFORMATION

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Polycystic horseshoe kidney is thought to represent two separate renal diseases. Horseshoe kidney is a renal fusion anomaly during embryogenesis. Autosomal dominant polycystic kidney disease (ADPKD) is a hereditary disorder due to mutations in the genes responsible for the expression of the proteins polycystin 1 and polycystin 2. Polycystic horseshoe kidney is very rare with incidence ranges of 1 in 134 000 to 1 in 8 000 000 live births.

We present a case of an 18-year-old primigravida at 22 weeks of gestation with ultrasonographically detected cystic formation in the abdomen (a dilated bladder) and anhydramnion. Screening for chromosomal abnormalities in the first trimester (PRISCA 1) found a low risk. Labor was induced with oxytocin and a stillborn male fetus weighing 605 grams was delivered. A complex congenital malformation of the urinary system was detected on autopsy – a dilated bladder, membrane of the urethral valve, and polycystic kidneys that were fused at their lower pole with a horseshoe appearance. On cross-section, the renal parenchyma was reduced due to the presence of numerous cysts with a diameter of 1-6 mm, filled with clear content. Microscopic examination confirmed the macroscopic finding of polycystic kidneys, with a reduction of the renal parenchyma and the presence of numerous cysts lined with low cylindrical to cuboidal epithelium. Analysis of the bladder sample showed hypertrophy of the detrusor muscle. This malformation led to impaired urination and absence of amniotic fluid.

The aim of this case presentation is to emphasize that prenatal ultrasound examination allows the detection of major fetal defects and pregnancy can be terminated if the fetus is severely affected. Fetal autopsy is a method of vital importance in complementing prenatal diagnosis. It may add valuable information that may improve future pregnancy management and hence prenatal ultrasound and fetal autopsy should be regarded as complementary techniques.

Keywords: polycystic kidney disease, horseshoe kidney, megacystis, anhydramnion

PREGNANCY AFTER HODGKIN LYMPHOMA

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Background: This case report presents the management of pregnancy and delivery of a 36-year-old patient with a complex medical history.

Case report: Our patient has a history of Hodgkin lymphoma, diagnosed 17 years ago, with a relapse occurring five years after the initial diagnosis, treated with chemo and radio therapy. Currently, the patient is in remission with no signs of disease activity.

First pregnancy was seven years ago, it was uneventful and resulted in spontaneous term delivery. However dyspnea occurred in the immediate postpartal period and significant pleural effusion was diagnosed, treated at the ICU of the University clinic for pulmology.

In the actual pregnancy the patient was refered at our clinic in the 2nd trimester with mild tachycardia, pre-existing arterial hypertension and anaemia. Multidisciplinary approach was used and following by an obstetritian, cardiologist, nephrologist and hematologist was done with regular laboratory analyses, echocardiography, blood pressure monitoring. Antihypertensive therapy (Methyldopa), antiarrhythmic (Verapamil), tromboprophylaxis (Enoxaparine) and antiaggregant therapy (Aspirin) were administered.

In terms of delivery mode a detailed assessment of the risks and benefits of surgery and induction of labour were discussed with the patient, considering her obstetric and medical history.

Delivery by elective cesarean section under spinal anesthesia was performed at 37 weeks of gestation. Postoperatively, the patient received antibiotic, uterotonic, thromboprophylactic, antihypertensive and antianemic therapy. Additionally, vigilant monitoring of cardiovascular function and comprehensive post-operative care were essential to prevent complications, including hemorrhage and arrhythmic events. Patient and the baby were both released at the 7th postpartal day in a good condition.

Conclusion

This case highlights the importance of a tailored, multidisciplinary approach to the management of high-risk pregnancies, emphasizing the need for individualized care in patients with significant medical histories.

Keywords: Hodgkin lymphoma, maternal arrhythmia, arterial hypertension, pleural effusion, high-risk pregnancy.

PRENATAL DIAGNOSIS OF NON-INHERITED OSTEOGENESIS IMPERFECTA

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Osteogenesis imperfecta (OI) is a group of rare inherited disorders of connective tissue, characterized by excessive bone fragility . It results from mutations in the COL1A1 and COL1A2 genes, which encode the alpha 1 and alpha 2 chains of type I collagen, respectively. Severe OI is perinatally lethal, while mild OI can sometimes not be recognised until adulthood.

Severe or lethal forms of OI can typically be identified through antenatal ultrasound and confirmed using advanced imaging techniques and genetic testing. A combination of imaging modalities, including ultrasound, computed tomography (CT), and magnetic resonance imaging (MRI), allows for accurate detection of OI and can also aid in predicting lethality before birth. Furthermore, prenatal genetic testing—whether noninvasive or invasive—can definitively confirm the diagnosis, providing crucial information for early medical intervention and parental counseling. We present a case of non-inherited osteogenesis imperfecta caused by a de novo mutation (c. 1094G>T, p.(Gly365Val)) in the COL1A1 gene, diagnosed prenatally in the early second trimestar. Early detection of skeletal dysplasia through ultrasound, followed by confirmation with genetic testing, allowed for a timely diagnosis and appropriate counseling.

Keywords: osteogenesis imperfecta, prenatal diagnosis, non-inherited osteogenesis imperfecta

MANAGEMENT OF MONOCHORIONIC DIAMNIOTIC TWIN PREGNANCY COMPLICATED BY TTTS TYPE I AND CERVICAL INSUFFICIENCY WITH CERCLAGE IN SITU

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A 34-year-old patient with a monochorionic diamniotic twin pregnancy at 23+3 weeks of gestation presented with cervical insufficiency (cervical length: 7 mm) and signs of twin-to-twin transfusion syndrome (TTTS) Type I. At 21 weeks, an emergent cervical cerclage was performed due to significant cervical shortening, stabilizing the pregnancy.

On admission, there was substantial fetal discordance in estimated weight (40%) and amniotic fluid levels: Twin I with polyhydramnios (EFW: 763 g) and Twin II with oligohydramnios (EFW: 459 g). Doppler studies revealed elevated pulsatility indices in both fetuses without major anomalies. Amniodrainage of 2200 ml was performed, effectively reducing intrauterine pressure and stabilizing fetal conditions. Follow-up management included serial ultrasounds, monitoring of fetal growth, Doppler parameters, and amniotic fluid indices. Corticosteroids were administered to enhance fetal lung maturity.

Therapeutic measures involved: Supp. Indomethacin 100 mg, once daily for 10 days, to address preterm labor risk. Tocorelax forte, one tablet daily for 10 days, for uterine relaxation. Tbl. Cyclogest 400 mg, twice daily for luteal support.

The patient remained under close obstetric surveillance. Post-procedure, no immediate complications occurred, and both fetuses demonstrated stable cardiac activity.

Keywords: Monochorionic diamniotic twins, twin-to-twin transfusion syndrome, amniodrainage, cervical insufficiency, preterm birth prevention

PRENATAL ULTRASOUND DIAGNOSIS OF THE VEIN OF GALEN ANEURYSMAL MALFORMATION ASSOCIATED WITH TURNER SYNDROME

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Prenatal diagnosis of the vein of Galen aneurysmal malformation which is a congenital malformation that develops during fetal development as a persistent embryonic prosencephalic vein. The main aim of the presenting case report is illustrating the disease with ultrasound performed during pregnancy.It should be stressed that the fetus has mosaicism of Turner Syndrome. The limitation in precision of prenatal diagnosis at primary care obstetrician and use of additional diagnostics tools for improving the diagnosis can lead to unwanted eventful of pregnancy, like intrauterine fetal demise.

Case Presentation: A 30-year-old multiparous woman (G2.P1) presented to the clinic with second pregnancy because of undergoing intrauterine growth restriction below fifth percentile and presence of oligohydramnios. She was referred to our clinic for second trimester screening for congenital abnormalities as normal pregnancy during checkups. Her results of PRISCA 1 shows high risk for aneuploidies, but she refuses further prenatal diagnostic for aneuploidies, ultrasound assessment was done, and we found intracerebral Midline hypoechogenic vessel with turbulent flow, cardiomegaly, shorter long bone for 3-4 week, micrognathia.

The pregnant patient was dilatated already 3-4 cm, she delivered spontaneously the next day. She delivered alive female fetus weight 1840gr/44 cm, AS 7/8. After delivery, the investigation was done. The vein Galen malformation was proved.

Conclusion: Turner syndrome (TS) is one of the most common sex chromosome abnormalities. Cardiovascular abnormalities are usual for this syndrome, but the Vein of Galen malformation was not connected to this syndrome. Infact, in the same fetus, two abnormalities were present. Other anatomic variations increase morbidity in this population, and negatively impact the social and reproductive aspects of their lives,like neurological, genitourinary, otolaryngologic, craniofacial, and skeletal defects associated with TS. After postnatal evaluation and parenteral counseling, they decided for further treatment in neighboring countries for cauterization of vascular cerebral abnormality.

Keywords: Prenatal care, Turner Syndrome, Aneurysm

CARCINOSARCOMA OF THE ENDOMETRIUM (Malignant mixed Mullerian tumor)

DEDIFFERENTIATED ENDOMETRIAL CARCINOMA (a rare aggressive subtype of endometrial carcinoma)

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Introduction: Endometrial carcinosarcoma is a rare (<5% of gynecological cancers), aggressive neoplasm that occurs in postmenopausal women and clinically manifests with characteristic abnormal postmenopausal bleeding. It may be associated with previous tamoxifen therapy, radiation therapy, chronic estrogen therapy, nulliparity, DM, and obesity. It is a biphasic malignant tumor with a high-grade carcinomatous (epithelial) and sarcomatous (mesenchymal) component. Both components probably arise from the same primitive cell that originates from the Müllerian mesoderm. Histologically, it consists of adenocarcinoma (endometrioid, serous, or clear cell) mixed with malignant mesenchymal (sarcomatous) elements that may be homologous (endometrial stroma, smooth muscle) or heterologous (differentiate into various malignant mesodermal components such as striated muscle, cartilage, adipose, or bone tissue).

Case report: a 77-year-old woman with a referral diagnosis of Metrorrhagia in menopause, CEF was performed and histopathologically in the curettage material from the uterine cavity numerous fragments of neoplastic tissue with a double malignant component (mesenchymal and epithelial) were seen. The neoplastic tissue is dominated by a malignant mesenchymal (sarcomatous) component which is built of atypical spindle-shaped to bizarre cells with hyperchromic and pleomorphic nuclei and numerous mitoses with foci of heterologous chondroid component, between which are atypical densely packed glandular structures, in places with a cribriform arrangement, lined with atypical cylindrical epithelial cells with hyperchromic and vesicular nuclei with prominent nucleoli. The finding is classified as Malignant mixed Mullerian tumor (endometrial carcinosarcoma). The patient was hospitalized and operated on for GAC (HTA cum BSO cum lymphadenectomy with pTNM:pT2, pNO, pMx, G3, NG3, pL1, pV1, Stage II), after which she was referred to Oncology for appropriate chemo and radio therapy.

Conclusion: MMMT i.e. endometrial carcinosarcoma is a malignant neoplasm with a high degree of malignancy with a 5-year survival rate of 25-30%, the prognosis of which depends on the depth of invasion and stage of the disease. The degree of differentiation and the histological subtype of the carcinoma component are also prognostically important, so that those with serous carcinoma, as well as heterologous differentiation of the sarcomatous component, have the worst prognosis.

Keywords: MMMT, endometrial carcinosarcoma, uterine bleeding in senium.

EFFECTIVENESS OF REMDESIVIR IN THE MANAGEMENT OF COVID-19 IN PREGNANCY

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Introduction

COVID-19 in pregnancy presents unique challenges, as the effects on maternal and fetal health remain an area of ongoing research. The use of antiviral medications, including Remdesivir, has been explored for the treatment of severe COVID-19 in non-pregnant individuals. However, limited data exists on the safety and efficacy of these treatments during pregnancy. This case report highlights the use of Remdesivir in the management of a pregnant woman with severe COVID-19 and examines the maternal and fetal outcomes.

Case Presentation

A 30-year-old woman, at 24 weeks of gestation, presented with fever, shortness of breath, and cough following a confirmed diagnosis of COVID-19. Her medical history was unremarkable, and she had no comorbid conditions. Upon admission, she exhibited signs of severe respiratory distress and was started on supplemental oxygen. Given her deteriorating clinical status and the recommendation from the obstetric team, Remdesivir was initiated on day three of hospitalization, following the US FDA's emergency use authorization guidelines for pregnant patients with severe COVID-19.

Clinical Course and Outcome

Over the course of five days of Remdesivir administration, the patient's respiratory symptoms improved, and her oxygen requirements decreased. By day eight, she was discharged in stable condition. Fetal monitoring showed no signs of distress, and ultrasound confirmed normal fetal development. The pregnancy continued without complications, and she delivered a healthy infant at term via vaginal delivery. There were no adverse effects observed in either the mother or the neonate post-delivery.

Discussion

This case highlights the potential benefits of Remdesivir in managing severe COVID-19 during pregnancy. While the data on antiviral treatment in pregnant patients remain limited, this case suggests that Remdesivir can be considered a safe and effective option for pregnant women with severe COVID-19, with close monitoring of both maternal and fetal health.

Conclusion

Remdesivir may play a vital role in the management of COVID-19 in pregnancy, though further studies are necessary to establish long-term safety and efficacy. This case report adds to the growing body of evidence supporting its use in certain pregnant populations.

PRIMARY OVARIAN LEIOMYOMA: A RARE BENIGN TUMOR WITH DIAGNOSTIC CHALLENGES

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Introduction: Primary ovarian leiomyoma is an exceptionally rare benign tumor, typically found in women aged 20 to 65 years. Since its initial description in 1862, fewer than 80 cases have been documented. Approximately 16% of these postmenopausal occur, accounting for 0.5-1% of all benign ovarian tumors. While most cases are unilateral, bilateral occurrences are rare and typically reported in women aged 16–25. These tumors are usually diagnosed incidentally during pelvic examinations or after surgical procedures. Despite being mitotically active in some cases, ovarian leiomyomas rarely recur or metastasize.

Case Presentation: A 29-year-old nulliparous woman (G0, P0) presented for a routine gynecological check-up. She was asymptomatic, with no history of infections, diseases, or surgeries. Ultrasound examination revealed a uterus in anteverted-flexed position with an anteroposterior diameter of 40mm and a thin endometrium. The right ovary appeared normal, while the left ovary exhibited a 35mm solid tumor. No free fluid was noted in the Douglas pouch. Further preoperative investigations, including tumor markers and complete blood analysis, returned normal results. The patient underwent laparoscopic surgery for tumor resection with appropriate preoperative preparation.

Histopathological examination confirmed a diagnosis of ovarian leiomyoma, and cytopathological analysis showed Class I findings. Postoperatively, the patient's recovery was uneventful. She was administered dual antibiotics, thromboprophylaxis, and symptomatic therapy and was discharged in stable condition with a follow-up scheduled in one month.

Conclusion: Primary ovarian leiomyoma is an exceedingly rare benign entity. Preoperative diagnosis can be challenging, especially when dealing with solid ovarian masses. Immunohistochemical analysis remains critical for definitive diagnosis. This case emphasizes the importance of considering ovarian leiomyoma in the differential diagnosis of solid ovarian tumors.

Keywords: Primary ovarian leiomyoma, solid ovarian tumor, diagnostic challenges, histopathology, laparoscopy, preoperative diagnosis

INVASIVE CERVICAL CANCER IN PREGNANCY: CASE REPORT AND MANAGEMENT CHALLENGES

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Introduction: Invasive cervical cancer during pregnancy is rare, with an incidence of 0.05%–0.1%. Managing such cases requires a multidisciplinary approach, including gynecologic oncology, maternal-fetal medicine, and neonatology.

Case Presentation: A 39-year-old pregnant woman at 22 weeks of gestation, with a history of two C-sections, was admitted to our clinic after a PAP test indicated a high-grade intraepithelial lesion. HPV testing revealed types 31, 16, and 51. Cervical biopsy confirmed carcinoma in situ, and LLETZ revealed invasive squamous cell carcinoma (HPV-associated, types 31, 16, 35). Staging with MRI and blood analysis confirmed Stage IB disease.

Following discussions with the patient and her family, a treatment plan was established. In December 2024, she underwent a cesarean section, radical hysterectomy, bilateral salpingectomy without oophorectomy, and pelvic lymphadenectomy. A live female infant with fetal weight of 600 g, and length of 30 cm was delivered but did not survive beyond 40 minutes. Postoperative histopathology confirmed invasive HPV-associated cervical planocellular carcinoma (Stage IB). The patient was discharged on the 14th postoperative day with advice for oncology follow-up.

Conclusion: Managing cervical cancer in pregnancy requires individualized treatment, balancing maternal and fetal outcomes. For patients who do not continue the pregnancy, treatment follows standard oncologic protocols. For those continuing the pregnancy, decisions depend on disease stage and gestational age, requiring careful coordination of oncologic and obstetric care.

Women of reproductive age should undergo regular cervical cancer screening, including PAP tests and HPV genotyping, along with other microbiological tests. Early detection and timely treatment are essential for preventing cervical cancer, especially during pregnancy.

Keywords: cervical cancer, pregnancy, treatment

LEUKEMİA DİAGNOSİS DURİNG PREGNANCY FOLLOW-UP: A CASE REPORT

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The importance of regular follow-ups during pregnancy is paramount due to their significant impact on maternal and fetal health. This study examines the early diagnosis of leukemia during pregnancy and the subsequent treatment process through a case report.

Case Report

A 20-year-old patient, experiencing her first pregnancy, was evaluated during her fourth follow-up at 7 weeks of gestation. As per the Ministry of Health's "Pregnancy Follow-Up and Care Management Guidelines," complete blood count (CBC), ferritin, and urine tests were requested. Although the patient's previous platelet levels were within normal ranges, her platelet count was found to be 39,000/mm³ in the current evaluation, leading to a referral to the hematology clinic. Advanced diagnostic evaluations conducted at the hematology unit revealed a diagnosis of acute myeloid leukemia. Following a cesarean delivery, the patient underwent treatment at the hematology clinic. Similar cases reported in the literature have demonstrated successful preservation of both maternal and fetal health through timely intervention. In this case, although both maternal and fetal outcomes were favorable, the delayed diagnosis exacerbated disease progression and complicated the treatment process.

Leukemia in Pregnancy: Diagnosis and Management

Although rare, leukemia can be identified during pregnancy through hematological abnormalities such as thrombocytopenia. Depending on the type of leukemia, symptoms may include fatigue, dyspnea, or objective findings such as leukocytosis. However, these symptoms may be overlooked or misattributed to physiological changes associated with pregnancy, leading to delayed diagnosis. Late diagnosis significantly increases maternal and fetal mortality. Treatment of leukemia during pregnancy should be individualized based on the clinical condition, and therapy should commence without delay.

Importance of Pregnancy Follow-Ups

The Ministry of Health underscores the critical importance of systematic follow-ups during pregnancy and infancy for ensuring maternal and fetal well-being. Implementing diagnostic and follow-up protocols as outlined in the guidelines facilitates the early detection and effective management of severe conditions.

Keywords: Family Medicine, Pregnancy, Thrombocytopenia, Leukemia

ACCIDENTAL FINDING OF SEROUS ENDOMETRIC CARCINOMA AFTER EXPLORATORY EXAMINATION CURETTAGE AND POLYPECTOMY

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Introduction: Serous carcinoma of the endometrium, based on the pathogenesis of endometrial carcinomas, belongs to the group of non-endometrioid types of endometrial carcinomas and constitutes about 5-10% of endometrial carcinomas. It most often occurs in postmenopausal women, based on endometrial atrophy. The degree of histological differentiation is not determined due to the poor prognosis and regardless of morphology they are appointed as poorly differentiated.

Case report: a 68-year-old woman underwent polypectomy and CEF with a referral diagnosis of Polypus CC et Metrorrhagia. Histopathologically, the polyp submitted was classified as Polypus fibroglandularis cervicis uteri, while the tissue from CC and CU are very scarce, but despite the scarcity in the material from CU, small fragments of endometrium (1-2mm) were seen, which are papillary in arrangement, built of fibrovascular nuclei lined with epithelial cells with pronounced cytological and nuclear atypia, with scarce eosinophilic cytoplasm and hyperchromic and pleomorphic nuclei, and in foci secondary micropapillae with significant exfoliation of the tumor cells are also seen. Given the histo-morphological picture, the finding is classified as Carcinoma serosum endometrii, for which additional IHH analyses are suggested to confirm the diagnosis. After the IHH analyses performed in HISTOLAB (P16+; P53 80% +; KI67 90% +; ES +; PR -; VIM-), the diagnosis was confirmed and the patient was hospitalized and operated (PTNM:pT1b, pNO, pMx, pLO, PVO, FIGO Stage IB).

Conclusion: Incidental finding of serous endometrial carcinoma is a diagnostic challenge, which is most often diagnosed by histological examination of tissue material from exploratory curettage. The poorer prognosis of these carcinomas is a consequence of their ability to exfoliate, transtubal spread and implant on peritoneal surfaces and therefore most often this neoplasm has already spread outside the uterus at the time of diagnosis.

Keywords: Serous endometrial carcinoma, irregular bleeding, curettage.

HPV TYPING AS A SUPERIOR METHOD TO THE PAP TEST IN THE DETECTION OF PREINVASIVE LESIONS OF THE CERVIX IN A PATIENT WITH ADENOCARCINOMA IN SITU

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Introduction: The known history of HPV infection with highly risk types and the development of preinvasive and invasive lesions serve as a basis for prevention, through establishment of preventive screening programs. For a long time, the citology has been the main screening method for analysis of cellular changes, but in recent years it has been discusses and advocated that the introduction of HPV testing might replace the PAP test, due to the superiority in sensitivity.
Case presentation: A 26 year-old patient, who presented for a routine gynecological examination (07.2011), during which a PAP test was performed and it was negative. Two months after the clinical finding (09.2011) HPV typing was performed and a mixed infection with high-risk HPV types 16 and 58 was detected. After detection of the viral infection, the patient was treated with antiviral drugs and immunomodulators. The patient has been undergoing regular gynecological examinations from February 2014 to February 2019. All PAP test performed during this period were negative. In December 2019, after a routine gynecological examination, HSIL (CIN 2) was detected on a PAP test and a recommendation was made for colposcopy, hitological verification and HPV typing. In January 2020, HPV typing was performed and the presence of high-risk HPV type 16 was detected. A biopsy was performed at the University clinic of gynecology and obstetrics with the finding of squamos and adenocarcinoma in situ of the uterine cervix. In March 2020, a conization with an ultracsision knife was perfomed and a squamous cell carcinoma in situ was found.
Conclusion: The PAP test shows reduced sensitivity and gives false negative findings, while HPV typing is a superior method in detecting preinvasive lesions of cervix.
Keywords: HPV infection, preinvasive lesions, PAP test, HPV typing

DEDIFFERENTIATED ENDOMETRIAL CARCINOMA (a rare aggressive subtype of endometrial carcinoma)

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Introduction: Dedifferentiated carcinomas in the female genital system have been described in the endometrium and ovaries. It belongs to the group of rare, aggressive carcinomas with a poor prognosis (about 2% of endometrial carcinomas and 0.5% of ovarian carcinomas), which is why precise pathological diagnosis using IHH analyses is essential to define the appropriate therapeutic approach and prognosis. An association with Lynch syndrome is possible, which is why it is important to take into account the patient's genetic profile. By definition, dedifferentiated carcinoma is characterized by the coexistence of 2 components: undifferentiated carcinoma and endometrioid adenocarcinoma G1/G2. Most often, it occurs at an average age of 55 years (21-76) with symptoms of dysfunctional metrorrhagia.

Case report: A biopsy and CEF were performed with a referral diagnosis of CIN I persistent ad PAP in a 48-year-old woman. Histopathologically, fragments of neoplastic tissue were seen in the submitted curettage materials, which infiltrated fragments of the cervical stroma, built from two components. One component of the neoplasm is undifferentiated, monomorphic, composed of small, relatively uniform, undifferentiated cells with pleomorphic nuclei and prominent nucleoli in a solid arrangement, with numerous pathological mitotic figures, while the second component of the neoplasm is a well-differentiated endometrioid adenocarcinoma with secretory and foci with squamous differentiation. For the phenotyping of the tumor population, additional immunohistochemical analyses were performed at the Institute of Pathology in Skopje, where the tumor cells showed the following immunoprofile: CK 18, CK 7 and EMA with strongly expressed positivity in the glandular component, Synaptophysin and CD 56 positive in the undifferentiated component, while p63, CEA and CD 10 are negative. Given the histo-morphological picture and immunophenotype of the tumor population, the finding is referred as dedifferentiated endometrial carcinoma with infiltration in the cervical stroma. The patient was sent to Oncology department and underwent several cycles of adjuvant chemo and radiotherapy, after which she was hospitalized and operated on GAK (ypTNM: Stage IA, G2, NG2, yp NO, yp Mx, up LO, yp VO, yp RO).

Conclusion: dedifferentiated endometrial carcinoma is a rare aggressive cancer with poor prognosis, which is mostly often diagnosed by histological examination of tissue from exploratory curettage, for which additional IHH analysis is necessary in order not to confuse it in differential diagnosis with the much more common endometrioid carcinomas and thus underestimate its incidence.

Keywords: cervical cancer, pregnancy, treatment

SPONTANEOUS RUPTURE OF THE UTERUS IN MENOPAUSE

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Introduction: Spontaneous rupture of the uterus in menopause is an extremely rare complication. Rupture of the uterus is the cause of severe morbidity and mortality in women with this pathology. The diagnosis of spontaneous rupture of the uterus is made when all three layers of the uterus are perforated. An accurate and definitive diagnosis can be made by laparotomy or laparoscopy.

Case report: Our paper presents a 73-year-old patient who was admitted to the department of general surgery under the clinical picture of acute abdomen. The patient states that her abdominal pain came on suddenly the previous day. After adequate preoperative preparation, an emergency laparatomy was performed. Spontaneous rupture of the uterus on the posterior wall was seen intraoperatively. A hysterectomy was performed with a bilateral adnexectomy. Only after the arrival of the histpathological findings, the cause of spontaneous uterine rupture was determined. Two fragments of plastic, spiral fragments were found in the uterine cavity.

Discussion: Spontaneous rupture of the uterus rarely occurs. In the reproductive period, they occur in women who have had intrauterine devices or in postmenopausal women as a result of pyometra. In our patient, the rupture occurred as a result of an incompletely extracted spiral. Computed tomography and ultrasonography play an important role in diagnostics. However, an accurate preoperative diagnosis is made only in 30% of cases. Only histopathological diagnostics was the exact cause of spontaneous uterine rupture established.

Conclusion: The diagnosis of spontaneous uterine rupture in menopause is extremely difficult and a real challenge for the doctor. The most accurate diagnosis is made by emergency ladecatomy. Hysterectomy is the treatment of choice for patients with spontaneous uterine rupture in menopause, regardless of the cause of the condition.

Key words: acute abdomen, menopause, uterine rupture

BARTER SYNDROME

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Background: Severe recurrent polyhydramnios raises concerns for underlying genetic, metabolic, or structural fetal abnormalities

Case Presentation: A 35-year-old gravida 4, para 0 woman was referred at 19 weeks of gestation due to extreme, repetitive polyhydramnios. She had a history of: 2 missed abortions and preterm labor at 23 weeks complicated by severe polyhydramnios and neonatal death. Postmortem examination of the neonate showed no structural anomalies.

The current pregnancy was conceived via IVF and was uneventful until 19 weeks, when polyhydramnios was first detected. First-trimester combined screening and non-invasive prenatal testing indicated low risk for aneuploidies. Gestational diabetes, second-trimester morphology scan, and TORCH infections were excluded. At 26 weeks of gestation, the patient was admitted at our department due to preterm contractions and received tocolytic therapy multiple times.Two amnioreduction procedures were performed to alleviate maternal discomfort and reduce uterine distension. Quantitative karyotyping from amniotic fluid was normal (chromosomes 13, 18, 21, and sex chromosomes).

Given the history of recurrent severe polyhydramnios, a multidisciplinary evaluation with a geneticist and pediatric nephrologist was conducted. A suspected diagnosis of Bartter syndrome led to further genetic testing.Molecular analysis from amniotic fluid and parental blood samples confirmed SLC12A1-associated Bartter syndrome type 1 in the fetus. Corticosteroid therapy was administered for fetal lung maturation. Delivery was performed via cesarean section at 31 weeks due to progressive maternal discomfort and imminent preterm delivery.

Neonatal findings: birth weight: 1180g, length: 30 cm, Apgar scores: 6/6/7. The neonate was admitted to NICU for intensive monitoring. On day 7 of life, the neonate developed cardiopulmonary failure, which was refractory to resuscitation, resulting in neonatal death.

Discussion: Bartter syndrome type 1, a rare autosomal recessive disorder affecting the sodium-potassium-chloride cotransporter in the renal tubules, leads to fetal polyuria, causing extreme polyhydramnios.

Key diagnostic challenges included: absence of structural anomalies in ultrasound evaluations, normal aneuploidy screening, making genetic syndromes less immediately suspected, previous unexplained pregnancy losses with similar presentation, warranting further genetic investigations.

Conclusion: Early genetic counseling and targeted testing can aid in prenatal decision-making and management planning.

Keywords: Bartter sy, polyhydramnious, pregnancy

MANAGEMENT OF WOLFF-PARKINSON-WHITE SYNDROME DURING OVARIAN CYST REMOVAL SURGERY

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Wolff–Parkinson–White (WPW) syndrome is caused by pre-excitation of heart ventricle due to an abnormal accessory pathway, bundle of Kent, between atria and ventricle, thus bypassing atrio-ventricular node. The incidence is 0.9-3% of the general population. Patients may present with symptoms ranging from mild chest discomfort, palpitation and hypotension to severe tachyarrhythmias, paroxysmal supra-ventricular tachycardia (PSVT) and atrial fibrillation (AF). We report a case of WPW syndrome in a 37-year-old patient scheduled for elective open surgery-extirpation of right ovarian cyst. Patient gave history of recurrent episodes of palpitations and uneasiness, diagnosed two years before. The palpitations lasted for 15-20 minutes and subsided on its own. ECG was suggestive of WPW syndrome with short PR interval, delta waves and widened QRS complex. Echocardiogram was in normal range (EF=62 %). Patient underwent an elective operation-extirpation of the right ovarian cyst and left ovarian resection, appendectomy and partial omentectomy. Spinal anesthesia was applied and there was a drop in the arterial pulse and tension, after which Gelofusin 4%-500 ml and ephedrine 12 mg were administered. During the operation, the patient had stable vital parameters and peripheral arterial saturation (SpO2) of 100 percent on oxygen mask (4 l/min), sedated with Midazolam 2 mg. Intraoperatively, all vitals maintained stabile. Postoperatively, patient was monitored for 24 hrs in recovery unit. Analgesia achieved with Paracetamol 500 mg and Tramadol 100 mg (twice a day). Post-operative period remained uneventful. In conclusion, our case report demonstrates that a diagnosed case of WPW syndrome can be managed uneventfully under spinal anesthesia. We recommend regional anesthesia with adequate preloading and treatment of any precipitating factors like hypotension, which was managed successfully with ephedrine. We also emphasize the importance of thorough preoperative evaluation, meticulous intraoperative monitoring for atrial and ventricular arrhythmias, and preparedness for the treatment of such conditions in case they develop.

Keywords: Wolff-Parkinson-White syndrome, arrhythmias, ovarian cyst, appendectomy, adequate preload, spinal anesthesia

SUCCESSFULLY MANAGEMENT OF ISOLATED OLIGOHYDRAMNIOS IN THIRD TRIMESTER OF PREGNANCY

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The amniotic fluid (AF) is the fluid that surrounds the fetus in the amniotic cavity during intrauterine development, and is fundamental for proper fetal development and growth in a nonrestricted, sterile, and thermally controlled environment.

Oligohydramnios is defined as decreased amniotic fluid volume (AFV) for gestational age. The volume of amniotic fluid changes over gestation, increasing linearly until 34 to 36 weeks gestation, at which point the AFV levels off (approximately 400 mL) and remains constant until term (1).

Sonographically, it is a maximum vertical pocket of liquor is < 2 cm or the amniotic fluid index is < 5 cm (less than 5 percentil) is specified(2,3).

Isolated oligohydramnios refers to the presence of oligohydramnios in an otherwise uncomplicated pregnancy without evidence of fetal structural or chromosomal abnormalities, fetal growth restriction, or infection, and in the absence of maternal hypertensive disorders or renal disease.

Keywords: Oligohydramnios, preterm birth, preterm rupture of membranes

PERIPARTUM CARDIOMYOPATHY

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Introduction: Peripartum cardiomyopathy (PPCM), also known as postpartum cardiomyopathy, is an uncommon form of heart failure that develops toward the end of pregnancy or within several months of giving birth. Cardiomyopathy refers to a weakening of the heart muscle. The heart chambers may enlarge and there is a decrease in the percentage of blood ejected from the heart with each contraction (also called the ejection fraction). This can lead to a backup of fluid in the lungs (causing shortness of breath) or legs (causing swelling). It is a very rare condition with incidence, 1 in 100 births in low income countries, an 1 in 10.000 births in high income countries.
Case report: A 17 year old patient in her first uncontrolled pregnancy was admitted to the hospital in good health in her 41-st. gestational week. A few hours after admittance she delivered a healthy baby. Due to anemia she was given one unit of transfusion. On the third postpartum day she began to feel chest pain. Internal medicine specialist examined her and came to conclusion that it is a tracheobronchitis acc. He prescribed cephalosporine and corticosteroids. Despite the doctor's advice she left the hospital. Six days after the delivery she was admitted at the outpatient department in cardiology with fatigue, shortness of breath and swelling on both ankles. HR 150 bpm, O_2 saturation 93%. Cardiac ultrasound: Left chamber dilated with globally reduced systolic function. Left atrium dilated. Aortic valve – tricuspid non-stenotic, moderate mitral regurgitation, right chamber with normal function, ejection fraction 30%. She was referred to a tertiary cardiology clinic for further treatment.
Conclusion: Women with PPCM have a significant risk of recurrent heart failure and other complications if they become pregnant again. Any woman who has been diagnosed with peripartum cardiomyopathy should consult with her cardiologist and obstetrician to discuss potential risks prior to having another pregnancy. Also, women who have had PPCM should see a cardiologist on a regular basis to monitor heart function and discuss ongoing use of medications.
Keywords: endometrial cancer, osteoclasts, postmenopause

ENDOMETRIAL CARCINOSARCOMA WITH OSTEOCLAST-LIKE GIANT CELLS IN A POSTMENOPAUSAL PATIENT

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A 63-year-old woman was hospitalized with a diagnosis of postmenopausal metrorrhagia, as well as type 2 diabetes mellitus and Hashimoto's thyroiditis. A cervical exploratory curettage specimen was sent for histopathological analysis. The result showed that the profile corresponded to endometrial carcinosarcoma consisting of moderately differentiated endometrial adenocarcinoma type with nuclear grade 2 and stromal sarcoma containing osteoclast-like giant cells. Due to the scarcity of cervical mucosal fragments and the presence of multiple fragments of the neoplasm, a precise assessment of the involvement of the cervix was not possible.

The patient opted on surgery, for the following clinical diagnosis - Endometrial carcinosarcoma with osteoclast-like giant cells cum invasio cervicis uteri Stage 2. After admission, clinical and laboratory tests were performed according to protocol: laboratory analyses, hemostasis factors and d-dimers, X-ray findings, MR of the upper abdomen and MR of the pelvis without contrast. After receiving the relevant diagnostic results, the oncology council decided to treat the patient with hysterectomy with bilateral salpingo-oophorectomy - HTA cum BSO.

The operation - radical hysterectomy was performed according to the Querleu-Morrow type B method, after which removal of the pelvic lymph nodes, lavage and placement of a drain in the vagina and retrograde closure of the abdomen in layers were performed, without operative and postoperative complications. Double antibiotic, analgesic, and thromboprophylactic therapy was prescribed during hospitalization. The uterus, with both adnexa and the upper third of the vagina and 8 regional lymph nodes were submitted for pathohistological analysis. The finding was consistent with an endometrial carcinosarcoma consisting of a moderately differentiated endometrioid type of nuclear grade 2 adenocarcinoma and a stromal sarcoma containing osteoclast-like giant cells. The neoplasm infiltrated more than half of the thickness of the wall of the uterus, the stroma of the cervix and gave a metastatic deposit in one lymph gland in the area of the internal iliac artery on the right side.

The disease, according to the UICC and AJCC is in IIIC1 stage.

After one month of hospitalization, the patient was discharged in good general condition with a normal local finding and a recommendation to contact the Oncology and Radiotherapy Clinic for further adjuvant chemotherapy.

The patient subsequently received six cycles of chemotherapy (Carboplatin and Paclitaxel) and brachytherapy was performed.

No metastatic deposits or free fluid in the pelvis were detected on the last follow-up MRI performed one year after discharge.

Keywords: endometrial cancer, osteoclasts, postmenopause

COMPLICATIONS AFTER PLEATED COLPOSUSSPENSION

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The case is about a 60-year-old woman with abdominal swelling, lower abdominal cramps, and occasional urine leakage triggered by coughing, sneezing, or laughing. She had no nocturia or urgency symptoms but reported significant social discomfort. Her history included two vaginal deliveries. A pelvic exam revealed mild urethral hypermobility during Valsalva, no significant pelvic organ prolapse, and a highly positive Marshall test for stress urinary incontinence (SUI). Additionally, a firm, mobile mass was palpated in the right abdomen. Ultrasound identified a 13 cm cystic formation in the right ovary with thick edges and no solid components.

To assess malignancy risk, we applied our original ROMI index, evaluating serum CA-125 levels, menopausal status, personal and familial history, and ultrasound features. The patient's ROMI score was 6, indicating low malignancy risk. Laparotomy revealed a large retroperitoneal mass adhering to the right ureter, necessitating J-J stent placement. A successful tumor excision was performed, followed by an abdominal hysterectomy and our modified Pleated Colposuspension after Antovska for SUI correction.

Postoperatively, the patient experienced urinary retention and discomfort, with significant postvoid residual urine. Foley catheterization was required, followed by surgical removal of colposuspension sutures on the left side. During the procedure, a small bladder lesion was sutured. After 14 days of catheter drainage, cystoscopy confirmed healing, and the J-J stent was removed. Residual urine remained at 150 ml, leading to tamsulosin 0.4 mg therapy for four weeks. Upon follow-up, residual urine decreased to 70 ml, and the Marshall test was negative. At the 3-month follow-up, there was no recurrence of stress incontinence, no vesicovaginal fistula, and no tumor recurrence. The patient reported a significant quality-of-life improvement. Histopathology confirmed a cystic vascular malformation (lymphangioma retroperitoneale).

This case highlights the effectiveness of unilateral colposuspension sutures in resolving severe SUI and demonstrates successful use of tamsulosin for postoperative urinary retention after colposuspension. The findings support its potential as a non-invasive treatment for post-surgical voiding dysfunction in women.

Keywords: Stress urinary incontinence, colposuspension, tamsulosin

FETAL SUBARACHNOID CYST: A CASE REPORT AND MULTIDISCIPLINARY MANAGEMENT APPROACH

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Introduction: Intracranial arachnoid cysts are cerebrospinal fluid (CSF) accumulations between the dura and brain parenchyma. Their fetal prevalence ranges from 0.2%–0.9% based on ultrasound and 1.1% on MRI studies. Most cases are sporadic and not linked to chromosomal abnormalities.

Case Presentation: A 32-year-old multiparous woman (G5, P3) at 28 weeks of gestation presented for a routine antenatal check-up. She was asymptomatic, with no history of infections, trauma, or teratogenic exposure. Her obstetric history included three previous uncomplicated vaginal deliveries. Ultrasound revealed a single live fetus with normal biometry and movements. A well-circumscribed, anechoic cystic structure within the subarachnoid space was identified, consistent with a fetal subarachnoid cyst. No ventriculomegaly, midline shift, or associated anomalies were noted, and Doppler studies were normal.

Antenatal management included serial ultrasounds for cyst size monitoring, fetal biophysical profiling, and Doppler assessments. Amniocentesis and neurosurgical consultation were recommended, but the patient declined invasive testing. Given the absence of hydrocephalus or mass effect, spontaneous vaginal delivery was advised. The neonatology team was informed for postnatal evaluation.

At 38 weeks, the patient delivered vaginally, giving birth to a healthy male infant (APGAR 8/9, 2735 g, 48 cm). Postnatal imaging confirmed a subarachnoid cyst without significant mass effect or neurological impairment. The neonate was discharged in stable condition with scheduled serial neuroimaging and follow-up with pediatric neurosurgery and neonatology.

Conclusion: This case underscores the role of advanced fetal imaging and multidisciplinary coordination in managing rare intracranial anomalies. Despite declining invasive prenatal testing, termination was not indicated. With appropriate antenatal surveillance and postnatal follow-up, most fetal subarachnoid cysts, as in this case, have a favorable prognosis.

Keywords: Fetal subarachnoid cyst, prenatal ultrasound, fetal MRI

OVARIAN METASTASIS FROM RECTAL ADENOCARCINOMA: A RARE CASE OF SECONDARY INVOLVEMENT OF THE FEMALE REPRODUCTIVE TRACT

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Introduction: Metastatic rectal adenocarcinoma frequently spreads to the liver and lungs, while involvement of the female reproductive organs is rare. The five-year survival rate for metastatic rectal cancer is 74% for regional spread and 17% for distant metastases.

Case report: We report a case of a 45-year-old woman with a history of stage IIIC rectal adenocarcinoma, treated with surgery and adjuvant chemotherapy two years prior. She presented with vague abdominal discomfort and a palpable mass. Laboratory findings showed elevated CA-125 (198.6U/mL) and HE-4 (52.81 pmol/L), with a ROMA index of 9.73%, suggesting a low probability of primary ovarian malignancy. Ultrasonography revealed a 12 × 11 cm solid-cystic mass near the uterus of unclear origin. Computed tomography (CT) identified a multilobulated cystic formation (9 × 12 × 10 cm) potentially arising from the uterus or right ovary, along with free fluid in the pelvis. Colonoscopy showed no signs of recurrence. A multidisciplinary tumor board recommended total hysterectomy with bilateral salpingo-oophorectomy, omental biopsy, and peritoneal fluid cytology. Histopathology confirmed metastatic adenocarcinoma of rectal origin with Class III cytology. The postoperative course was stable, and the patient was referred for systemic oncologic treatment.

Conclusion: This case highlights the importance of recognizing atypical metastatic patterns in rectal cancer. Secondary ovarian involvement may mimic primary gynecologic malignancies, complicating diagnosis. Multidisciplinary management, integrating surgery, systemic chemotherapy, targeted therapy, and immunotherapy, is essential for improving outcomes in patients with rare metastatic presentations. Early recognition and individualized treatment strategies remain crucial for optimizing survival and quality of life.

Keywords: metastatic adenocarcinoma, rectal adenocarcinoma, multidisciplinary management

PERITONITIS AS A CONSEQUENCE OF ENDOMETRITIS AFTER A CESAREAN DELIVERY

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Background: Endometritis after a cesarean section is uncommon but more likely to occur following emergency procedures. If left untreated, it can lead to severe complications such as peritonitis and sepsis.

Case Report: A 23-year-old woman developed puerperal endometritis one week after an emergency cesarean. She presented with fever, elevated white blood cell count, and high C reactive protein levels. Microbiological tests identified an Enterococcus infection. Imaging revealed pleural effusion, air in the uterus, and abdominal fluid. Her condition worsened, and there were concerns about pulmonary embolism and heart failure. A cardiological evaluation excluded pulmonary embolism, but the patient's condition continued to deteriorate, leading to peritonitis and abscess formation. This required an exploratory laparotomy. The surgery revealed severe adhesions, abscesses, and a hematoma in the right adnexa. Post-surgery, her condition worsened with increasing inflammation and signs of a severe infection. Further imaging revealed abdominal abscesses and enlarged lymph nodes, prompting another laparotomy to drain the abscesses and address bowel perforations. Despite ongoing infections, a jejunostomy was performed, and the abdominal wound was managed using Negative Pressure Wound Therapy (NPWT). After several rounds of NPWT, the patient was successfully extubated, and her condition began to stabilize. Following additional surgical procedures and wound management, she was discharged in stable condition.

Conclusion: This case underscores the importance of early detection and management of post-cesarean infections to prevent severe complications like peritonitis and organ failure. Timely surgical intervention, appropriate antibiotics, and effective post-operative care played a crucial role in the patient's recovery.

Keywords: Peritonitis, Endometritis, Negative Pressure Wound Therapy (NPWT).

DIAGNOSIS AND TREATMENT OF PATIENT WITH CORNUAL PREGNANCY

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Introduction: Cornual pregnancy is a rare presentation of ectopic pregnancy and is diagnosed when gestational sac is located in the uterine horn on ultrasound examination. The common treatment of patients with cornual pregnancy is resection of uterine horn with uterus repair.

A case presentation: We present a case with 32 years old patient with amenorrhoea of two weeks and abdominal pain in the lower parts of abdomen. Serum levels of human chorionic gonadotropin were 59224 mIU/ml and on ultrasound there was gestational sac with embrion and positive heart action in the right uterine horn. In the same time there was suspicion for septum of uterus. The patient was prepared for operation and laparotomy with resection of right uterine horn and salpingectomy and suture of uterus was made. Postoperatively the patient was in good condition and was admitted from hospital after three days. Histopathological examination confirmed diagnosis of cornual pregnancy.

Discussion: Risk factors for cornual pregnancy included: malformations of the uterus (uterus bicornis, septum of the uterus), sexually transmitted diseases, intrauterine device etc. Early diagnosis is very important because this condition can be very dangerous for the patient and need urgent treatment.

Conclusion: Early diagnosis and treatment of patients with cornual pregnancy is very important and can save their lifes.

Keywords: cornual pregnancy, cornuectomia

PRENATALY DIAGNOSED CASE OF ESOPHAGEAL ATRESIA IN A MOTHER WITH A HISTORY OF BREAST CANCER

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Background

Esophageal atresia (EA) is a spectrum of congenital anomalies characterized by a lack of continuity of the esophagus with or without abnormal connections with the trachea (tracheo-esophageal fistula). The prevalence of EA is 2.3 cases per 10 000 births.

Among women of reproductive age, breast cancer is the most commonly diagnosed malignancy so pregnancy in these cases can be expected.

Case report

We present a case of 38-years old primigravida (G1, P0) with a history of IInd stage breast cancer (invasive ductal type, NG2, ER+, PgR+) treated with quadrantectomy, chemo, radiotherapy and hormone therapy at the age of 34. After 2 years of remission and oncology consult spontaneous conception was achieved. She was reffered at our clinic in 20th gestational week for 2nd trimester anomaly scan: it was unremarkable except absence of fetal stomach. The finding was identical in the following ultrasound scans and esophageal atresia was highly suspected. Prenatal counceling was done, invasive diagnostics was offered but the patient refused since she already had non invasive cell free DNA testing in 12 gw which was low risk for aneuploidies. Pregnancy was followed regularly and polyhydramnious occurred around 28th gw.

Delivery was performed by a caesarean section in 37 gw, due to foetal distress and parietal presentation. Neonatal birth weight was 2230g, length 44cm, AS 8/9. Neonatal respiratory mild distress occurred with need for non invasive oxygen supply. Chest and abdominal radiograph confirmed a type A of atresia. Operative treatment in the clinic for child surgery was done in the third day after birth with gastrostomy and cervicostomy. Two months later the baby is in good condition and second surgery is planned in specialized centre for reconstruction.

Conclusion

Understanding the principles of antenatal diagnosis and postnatal presentation in esophageal atresia can result in better outcomes.

Keywords: esophageal atresia, breast cancer

PREGNANCY WITH MATERNAL ANTI-M ANTIBODIES, HYPOTHYROIDISM AND THROMBOPHILIA

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Anti-M antibody is an immune system protein that targets the M antigen on red blood cells (RBCs). It belongs to the MNS blood group system, where individuals can have M,N, or both (MN) antigens on their RBCs.

Maternal alloimmunization to anti-M antibodies is rare and considered of low clinical significance. However, in some cases, it has been associated with hemolytic disease of the fetus and newborn therefore needs careful monitoring. This case in which we present a 32 year old woman in her second pregnancy after one spontaneous abortion, highlights the complexity of carefully monitoring both maternal and fetal health in a pregnancy with comorbidities to ensure optimal management and the spontaneous delivery of a healthy baby.

Keywords: Anti-M antibodies, Maternal alloimmunization, High-risk pregnancy

HYDATIFORM MOLA PARTIALIS IN A 50-YEAR-OLD WOMAN: CLINICAL IMPLICATIONS AND DIAGNOSIS

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This case represents a 50-year-old woman who was diagnosed with a partial hydatiform mole, a rare form of gestational trophoblastic disease, characterized by abnormal growth of placental tissue, after presenting with abnormal uterine bleeding and significantly elevated B-hCG levels.

Ultrasound imaging revealed a heterogeneous intrauterine mass, suggestive of a molar pregnancy. The patient was initially treated with vacuum aspiration to evacuate the uterine contents. Histopatological examination confirmed the diagnosis of partial hydatiform mole. Following the aspiration, methotrexate was administered to reduce the risk of persistent trophoblastic disease and to prevent the development of choriocarcinoma.

Despite appropriate treatment, the patient's clinical course was complicated by persistent elevated B-hCG levels, requiring further intervention. Due to patient's advanced age and the risk of malignant transformation, a decision was made to proceed with a hysterectomy. Postoperative recovery was uneventful, and follow-up monitoring of B-hCG levels showed a complete resolution of the disease.

This case highlights the potential for late-onset presentations of the condition, posing diagnostic challenges and necessitating a thorough evaluation. Long-term monitoring for potential complications, such as persistent throphoblastic disease, is essential.

Partial hydatiform mole requires early detection and appropriate management to prevent complications. A combination of vacuum aspiration, methotrexate and hysterectomy can be an effective treatment strategy for patients. Close follow up is essential to ensure complete resolution of the disease. This case highlights the importance of careful, long-term monitoring for potential complications and individualized treatment strategies in managing trophoblastic disease in older woman.

Keywords: Partial hydatiform mole, trophoblastic, advanced maternal age

SEVERE COVID-19 PNEUMONIA IN PREGNANCY COMPLICATED WITH OLIGOHYDRAMNIOS AND INTRAUTERINE GROWTH RESTRICTION

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We report a 30-year-old primigravida at 35 weeks gestation diagnosed with severe COVID-19 pneumonia, complicated by oligohydramnios and intrauterine growth restriction (IUGR). The patient presented with fever, dry cough, and shortness of breath, and tested positive for SARS-CoV-2. Chest imaging confirmed COVID-19 pneumonia, and her respiratory condition worsened, requiring supplemental oxygen. She was treated with corticosteroids (dexamethasone), remdesivir, broad-spectrum antibiotics, and thromboprophylaxis therapy according to standard guidelines for managing severe COVID-19 in pregnancy.

Ultrasound examination revealed oligohydramnios and fetal growth restriction, with the fetus measuring below the 10th percentile for gestational age. Non-stress tests and Doppler studies showed signs of fetal distress. Despite supportive care, maternal respiratory function deteriorated, prompting the decision for urgent delivery.

At 35 weeks, an emergency cesarean section was performed. The infant, a female weighing 2.1 kg, had Apgar scores of 7 at 1 minute and 8 at 5 minutes. The neonate required admission to the neonatal intensive care unit (NICU) for two weeks due to low birth weight and IUGR but did not require respiratory support. The infant showed gradual improvement and was discharged after two weeks.

Postpartum, the mother's respiratory condition improved with continued oxygen therapy. She was transferred to an infectious disease clinic for further management and recovery and was discharged on day 4 with stable vital signs.

Both mother and infant made a full recovery. This case highlights the complexity of managing severe COVID-19 in pregnancy, emphasizing the importance of early diagnosis, multidisciplinary care, and timely intervention to optimize maternal and fetal outcomes.

Keywords: COVID-19, pneumonia, pregnancy, oligohydramnios, intrauterine growth restriction, corticosteroids, remdesivir, cesarean section.

PREGNANCY WITH POLYCYTHEMIA VERA - AN OBSTETRIC CHALLENGE

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Polycythemia vera (PV) is a rare chronic myeloproliferative disorder of the haematopoietic stem cell type characterized by increased erythrocyte production. The disease is associated to a high risk of clinical complications - arterial and venous thrombosis, especially in pregnancy, bleeding, possible evolution to myelofibrosis and acute myeloid leukemia. We present the case of a 28-years-old patient, whose diagnosis was made 2 years before pregnancy (positive for mutation JAK2 V617F, bcr-abl negative, MPL, CALR negative). She was regularly monitored at the Hematology Clinic, had therapeutic venipunctures performed and anticoagulant therapy was prescribed. Pregnancy was regularly followed, with proper fetal growth and development, regular screening for fetal abnormalities, under anticoagulant therapy and under the supervision of a hematologist. At 34 weeks gestation, due to bleeding and pain, she was hospitalized in the Peripartal Intensive Care Department suspected of placental abruption. A caesarean section was performed immediately, a premature fetus was delivered in relatively good condition, and during the operation abruption of 1/3 of the placenta was found. The operative and postoperative periods were stable, the patient received replacement therapy and was discharged from the hospital on the 5th postoperative day in good general condition. The newborn was stabilized and discharged in good general condition after 3 weeks of stay at the Neonatal Intensive Care Department.
Conclusion: Pregnancy in patients with this disease carries serious risks to the life and health of both mother and fetus, which requires special attention during pregnancy in order to reduce antenatal and postnatal morbidity.
Keywords: aspirin, bleeding, polycythemia vera, pregnancy.

CASE REPORT OF OVARIAN TORSION IN THE SECOND TRIMESTER OF PREGNANCY

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Introduction: Ovarian torsion is a rare gynecological emergency, but with serious consequences if not diagnosed and treated in time. During pregnancy, it occurs most often in the third trimester and is most common in the dexter ovary. Torsion of a normal-sized ovary is an unusual finding and can create diagnostic challenges due to nonspecific symptoms.

Objective: To present a clinical case of ovarian torsion during the second trimester of pregnancy, emphasizing the importance of rapid diagnosis and emergent surgical intervention.

Methodology: This study presents a case report based on the clinical evaluation and treatment of a patient, as well as a brief review of the literature.

Results: A 28-year-old patient in the 21st week of pregnancy, with a history of two cesarean deliveries, presented to the emergency department with severe progressive pain in the lumbar region. Initially, she was evaluated by a nephrologist due to suspected renal cause, before being referred to a gynecologist. Ultrasound and Doppler revealed an edematous left ovary measuring 36x38x25 mm (volume 30 cc), compared with the normal right ovary (10 cc). The follicles were displaced to the periphery, vascularization was absent, and there was minimal free fluid in the Douglas space. After confirmation of the diagnosis, the patient was referred for immediate surgical intervention to a tertiary hospital, where she underwent emergency left adnexectomy.

Conclusions: This case highlights the importance of rapid diagnosis and emergency surgical treatment of ovarian torsion in pregnancy. Prompt intervention is essential to preserve maternal and fetal health.

Keywords: ovary torsion, pregnancy, second trimester, emergency surgery

MANAGEMENT OF THIRD-DEGREE VAGINAL LACERATION IN A PRIMIGRAVID PATIENT FOLLOWING SPONTANEOUS VAGINAL DELIVERY OF A MACROSOMIC NEONATE

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Introduction

This report discusses a case of a 22-year-old primigravid patient who delivered at 40 weeks of gestation, resulting in a 4 kg neonate. The delivery was complicated by a third-degree vaginal laceration, underscoring the importance of recognizing and managing perineal trauma.

Case Presentation

A 22-year-old woman presented in active labor with a duration of 10 hours. She underwent a spontaneous vaginal delivery of a neonate weighing 4 kg. Despite an otherwise uncomplicated labor, the patient sustained a third-degree laceration involving the vaginal mucosa, perineal muscles, and anal sphincter.

Management

Following delivery, the laceration was assessed and confirmed as third-degree. The patient was stabilized, receiving intravenous fluids and analgesics for pain management. Surgical repair was performed in the operating room under sterile conditions, utilizing absorbable sutures for effective closure. Postoperative care included monitoring for signs of infection and providing the patient with detailed instructions on perineal care to promote healing.

Outcomes

The patient experienced an uneventful recovery, with no signs of infection or complications during her hospital stay. At her 6-week postpartum follow-up, she exhibited complete healing of the laceration and reported satisfactory recovery. The neonate thrived, demonstrating normal growth and developmental milestones.

Discussion

This case highlights the risks associated with vaginal delivery, particularly in primigravid patients who deliver larger infants. Awareness and preparedness for potential lacerations are crucial for healthcare providers to ensure appropriate management and care during labor and delivery.

Conclusion

This case emphasizes the necessity of proactive management of perineal lacerations during vaginal delivery. Effective assessment, timely surgical intervention, and comprehensive patient education are essential to reduce complications and improve recovery outcomes. By enhancing awareness and care practices, healthcare providers can foster better health outcomes for both mothers and their infants.

CONGENITAL VARICELLA SYNDROME IN A TWIN PREGNANCY

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Congenital Varicella Syndrome (CVS) is a rare condition caused by maternal varicella zoster virus (VZV) infection during pregnancy, leading to fetal malformations. This case report highlights CVS in a twin pregnancy where one twin was affected.

Introduction: CVS occurs when a pregnant woman contracts VZV, and the virus crosses the placenta, affecting the fetus, with the highest risk during the first trimester. Affected fetuses may show a range of defects, including skin lesions, limb abnormalities, and neurological impairments. In a twin pregnancy, one twin may be more affected than the other, as demonstrated in this case.

Case Presentation: A 22-year-old woman, G3P1Ab1, at 14 weeks of gestation with a twin pregnancy, presented with a fever and a chickenpox-like rash. She had no prior varicella history and was diagnosed with primary VZV infection. Following the diagnosis, the patient was screened by a fetal medicine expert, who advised termination of the pregnancy. However, the patient opted to continue the pregnancy.

Ultrasound at 36 weeks revealed significant growth discordance, with one twin intrauterine growth restricted. The affected twin was delivered at 37+1 weeks via cesarean section, with a weight of 2.67 kg. Clinical findings included skin scarring on the right limb. The unaffected twin was healthy at birth, weighing 1.75 kg.

Management: The affected twin received care in the neonatal intensive care unit for skin lesions and limb abnormalities. A multidisciplinary team provided support for the affected twin. The unaffected twin was monitored for any potential complications but remained asymptomatic.

Discussion: In twin pregnancies, one twin may be affected by CVS while the other remains unaffected, possibly due to differential placental involvement. Early maternal varicella infection poses a high risk for CVS in the first trimester, but late-stage infections may result in milder outcomes for the unaffected twin. Preventive strategies, including vaccination and VZIG, are critical.

Conclusion: CVS in a twin pregnancy can lead to significant differences in fetal outcomes. Timely diagnosis, individualized care, and preventive measures are essential in managing these pregnancies.

Keywords: Congenital Varicella Syndrome, Twin pregnancy, Infection

ULTRASOUND FINDINGS OF MEGA CISTERNA MAGNA IN OBSTETRIC CASE: A DIAGNOSTIC OVERVIEW

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This case report represents a 33-year-old woman at 30 weeks of pregnancy, complicated by the finding of a mega cisterna magna (MCM), on a prenatal ultrasound.

A rare condition refers to an abnormally large cisterna magna, a cerebrospinal fluid-filled space at the base of the brain. It may be associated with various neurological disorders. Its diagnosis requires careful evaluation to distinguish it from other more serious structural abnormalities, such as Dandy-Walker malformation or other cerebellar malformations.

The patient had no previous history of complications, and her pregnancy had been progressing normally. Ultrasound revealed the enlargement of the cisterna magna, an uncommon but notable condition in fetal neuroanatomy, which prompted further evaluation for any potential neurological concerns.

In this case, the pregnancy was closely monitored, and subsequent imaging confirmed the isolated nature of the MCM with no associated hydrocephalus or other malformations. At 35 weeks of gestation, a follow up ultrasound showed progression in the cisterna magna size to 17mm. Due to the progression of the cisterna magna, it was advised to terminate the pregnancy with a third C-section. The patient delivered an infant at 35+5 weeks of gestation with postnatal imaging further confirming the benign nature of the condition.

Labor at 35+5 weeks of gestation, which is considered as late preterm, there are distinct considerations for both maternal and fetal health. Preterm labor at this age requires careful management to minimize risks to the infant, including respiratory distress, feeding difficulties and thermoregulation challenges.

This abstract explores the intersection of mega cisterna magna, discussing the potential outcomes, diagnostic challenges and implications for clinical decision-making during labor and delivery. A multidisciplinary approach, including obstetricians, pediatricians and neurologists, is recommended to ensure the best possible care for both mother and child.

Keywords: Mega cisterna magna, diagnosis, management.

IMMATURE TERATOMA: DIAGNOSIS AND MANAGEMENT—A REVIEW OF CASE

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An immature teratoma is a malignant germ cell tumor composed of three germ layers, occurring more frequently in young women. It is the second most common malignant germ cell tumor after dysgerminoma and is the only neoplasm with germ cells that are histologically graded. An immature teratoma is thus a rare tumor, representing 1% of all teratomas, 1% of all ovarian cancers, and 35.6% of malignant ovarian germ cell tumors. We present the case of a 28-year-old patient who presented with lower abdominal pain that began approximately 4 months ago. An ultrasound revealed a tumor on the right side and retrouterine, partly cystic with heterogeneous hypoechoic content, and partly solid with a heterogeneous component, measuring 88 x 41 mm. The results of the tumor marker tests were all within the normal reference range. According to the CT features, the changes described may be consistent with teratomas or dermoid cysts. The patient reported four spontaneous vaginal deliveries (one of which ended in neonatal death) and one spontaneous abortion. Additionally, in 2015, the patient underwent the extirpation of a G3 tumor, with histopathological findings indicating an immature teratoma. Postoperatively, the patient received three cycles of bleomycin, etoposide, and cisplatin (BEP) as adjuvant chemotherapy, with a good response. Following an oncology board consultation, the decision was made to proceed with surgical treatment.

The patient underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy due to recurrence, which had disseminated through the omentum and peritoneum. Histopathological findings suggest a growing teratoma syndrome. This case illustrates the importance of early diagnosis and treatment of immature teratomas, which can be cured with surgery and chemotherapy, as well as the option of fertility-sparing surgery.

Key words: immature teratoma, therapeutical management, fertility preservation

FETAL BOWEL DILATATION IN A PREGNANT PATIENT

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Introduction: Fetal bowel dilatation, detected on prenatal ultrasound, may indicate gastrointestinal abnormalities such as meconium ileus, intestinal atresia, or cystic fibrosis. Polyhydramnios, commonly linked to gastrointestinal obstructions, warrants careful monitoring when present alongside bowel dilatation to determine the cause and plan management.

Case Presentation: A 37-year-old woman, G2P1, at 21 weeks of gestation, underwent routine ultrasound revealing moderate to severe fetal bowel dilatation (bowel loops up to 20 mm) with a normal amniotic fluid index. No structural anomalies or fetal growth restriction were noted. The patient had no history of gastrointestinal disorders, and maternal-fetal blood tests were unremarkable. She was referred to a fetal medicine specialist for further evaluation.

Management: At 32 weeks, increasing bowel dilatation and rising polyhydramnios led to hospitalization for close monitoring. Betamethasone was administered for fetal lung maturation. Serial ultrasounds showed worsening obstruction, prompting cesarean delivery at 33 weeks due to concerns of fetal distress. A female neonate (1.94 kg) was delivered and required respiratory support for prematurity. Initial abdominal x-rays showed bowel distension without perforation or meconium ileus.

Outcome & Conclusion: Postnatal evaluation confirmed bowel atresia, and the infant was referred for surgical management. Fetal bowel dilatation with polyhydramnios presents diagnostic and management challenges, requiring close monitoring, timely corticosteroid administration, and a multidisciplinary approach. Serial ultrasounds and fetal MRI aid prenatal assessment, though a definitive diagnosis often emerges postnatally. Early intervention is crucial to optimizing neonatal outcomes.

Keywords: fetal bowel dilatation, cesarean section, polyhydramnios, ultrasound

A RARE CASE REPORT OF CONGENITAL PULMONARY AIRWAY MALFORMATION AND THE DECISION-MAKING CHALLENGES INVOLVED.

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Introduction: Congenital Pulmonary Airway Malformation (CPAM) is a rare congenital lung condition that results from abnormal lung development during embryogenesis. With an incidence of 1 in 10,000 to 35,000 births, CPAM is the most common type of congenital lung lesion. This case highlights the prenatal diagnosis of CPAM using ultrasound imaging and discusses the challenges faced in a resource-limited setting.

Case Presentation: A 25-year-old multiparous woman (G2.P1) presented for her second pregnancy at 22 weeks of gestation after having three previous normal antenatal checkups. Routine ultrasound examination showed a singleton pregnancy with normal fetal movements, biometrics, and amniotic fluid levels. The placenta appeared normal, and no structural abnormalities were noted in the kidneys or other organs. However, a mediastinal shift to the right side of the chest was observed, caused by multiple cystic lesions in the left lung. The largest cyst measured 12x10 mm, with a total of five cystic formations seen on ultrasound. Color Doppler mapping was performed, and the CPAM Volume Ratio (CVR) was calculated at 1.2 cm^2.

Discussion: Given the diagnosis of CPAM, the couple was counseled about the possibility of expectant monitoring and the associated risks of intrauterine fetal death, such as heart failure. However, due to limited resources and the unavailability of further diagnostic options like fetal MRI and genetic testing for the HOXB5 gene, the couple chose to terminate the pregnancy. Histopathological examination confirmed CPAM type II with features of immaturity of internal organs and retroplacental hematoma.

Conclusion: CPAM, though rare, presents significant diagnostic challenges, particularly in developing countries. In such settings, limited diagnostic tools may lead to difficult decisions regarding pregnancy continuation. Early prenatal detection through ultrasound is critical for timely intervention or counseling.

Keywords: Congenital Pulmonary Airway Malformation (CPAM), lung development, prenatal detection

TWO FETAL DEMISSES IN TRIPLETS PREGNANCY IN SECOND TRIMESTAR WITH IMPLICATION ON LIVE FETUS AND MOTHER'S HEALTH

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Pregnancy is when three fetuses are carried and delivered by mother at once. The overall incidence is 1 of 7300 pregnancies. As a result of the use of aided reproductive technology, the overall incidence of these pregnancies has increased. They are with increase perinatal risks because of intrauterine growth restriction, fetal discordance, intrauterine demise, congenital malformations, preterm birth, pre-eclampsia, gestational diabetes, anemia, risk for thrombosis, operative and anesthesiology complications. The main goal of this case report is presenting the implications of intrauterine dead of two fetuses in triplets conceived spontaneously at 25 gestational weeks. It was the second pregnancy after the earlier cesarean section. The ultrasound scan at our clinic reveals diamniotic, dichorionic pregnancy with fused placentas at 23 gestational weeks with three live discordant fetuses more than 20% between them with amount of amniotic fluid in normal range. At the next control scan two week later, the one fetus was dead and after 4 days the other one died in the same amniotic sac. At 26 gestational weeks, iatrogenic premature delivery with second cesarean section in regional anesthesia was done. A vital male fetus with 1050 g and 31cm and two dead fetuses were delivered. The discordance between them was 9.2% and it was 40 % with a live fetus. After 10 weeks the live newborn was discharged without serious sequels. It can be concluded that it is especially important to detect multifetal pregnancy as soon as possible, especially number of fetuses, chorionicity and amnionicity, to prevent the above-mentioned complications.

Keywords: demise, fetal, implication, maternal, triplets

TERMINATION OF PREGNANCY WITH INTRA-AMNIOTIC HYPERTONIC SALINE IN A PATIENT WITH DILATED CARDIOMYOPATHY

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Cardiomyopathy is defined as a group of disorders affecting the myocardium, resulting in structural and functional abnormalities of the heart muscle, in the absence of underlying diseases that could contribute to myocardial abnormality. Dilated cardiomyopathy is characterized by enlargement of the left ventricle and impaired systolic function. The onset of dilated cardiomyopathy during pregnancy, or the exacerbation of preexisting dilated cardiomyopathy, carries significant risks for both the mother and the fetus. This report presents a case involving a 25-year-old woman, gravida 5, para 3, who has undergone three pregnancies that ended in Cesarean section, with the most recent occurring two years prior, in addition to one spontaneous abortion. The patient received a diagnosis of dilated cardiomyopathy during her third pregnancy in 2022, with an ejection fraction (EF) of 46%. At 20 weeks of gestation, she was admitted to our hospital for pregnancy termination, following a cardiologist's recommendation, who indicated that the pregnancy posed a high risk of exacerbating the patient's heart failure. Throughout the pregnancy, both the patient's condition and the fetus's viability were closely monitored using ultrasound and echocardiography. The termination procedure was performed after obtaining informed consent from the patient, using a hypertonic 30% NaCl solution. This technique is utilized for terminating pregnancies in the second and third trimesters, specifically between the 16th and 24th weeks of gestation, and involves the injection of hypertonic saline into the amniotic cavity under ultrasound guidance. This case report aims to underscore the perinatal risks associated with dilated cardiomyopathy and to detail the specific technique of pregnancy termination.

Keywords: Dilated Cardiomyopathy, Hypertonic Saline, Pregnancy Termination

SIMPSON GOLABI BEHMEL SYNDROME

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Background: Simpson–Golabi–Behmel syndrome (SGBS) is a rare X-linked syndrome. Female carriers may have mild manifestations. Macrosomia, polyhydramnios, and kidney and urinary tract anomalies are common findings in male fetuses.
Case report: A 32-year-old patient, with her second pregnancy. The first pregnancy was terminated at 28 weeks of gestation due to polyhydramnios and a history of fetal anomaly (Dandy Walker Sy).She came to our practice for the first time in 11+ 5 g.w. for the First trimester scan. Ultrasound finding: positive heart action,FHR-153 bpm, with tricuspid regurgitation, CRL-65mm(12+6g.w.) , BPD-23mm(13+6g.w) ,NT-5,4 mm, NK absent. Due to the increased risk of screening, the patient was advised to have a chorionic biopsy. However, her wish was to have a NIPT first, which resulted in a karyotype of 46,XY. Despite the normal karyotype due to the ultrasound markers, the patient was advised to have a chorionic biopsy or, after 16 weeks, amniocentesis. However, she decided not to do this and to continue monitoring the pregnancy in another institution.
Her next visit was after the termination of that pregnancy. She was followed up until 24 weeks of gestation when a cyst was observed on the fetal kidney,and she was sent to a foreign country for an expert ultrasound - fetal morphology. Where the right kidney was seen - multicystic with enlarged dimensions, the left one strongly hyperechoic with enlarged calyces and pelvises, enlarged bladder, polyhydramnios.
Due to a very likely chromosomal or genetic disorder in the fetus with a poor prognosis, termination of the pregnancy and genetic testing of the fetus and parents was suggested. The results of genetic testing of the fetus revealed Simpson Golabi Behmel genetic syndrome. A heterozygous pathogenic variant of the GPC3 gene was detected in the mother.
Conclusion: The significance of ultrasound markers on first trimester scan in the further monitoring of pregnancy and determination of chromosomal, genetic and structural abnormalities of the fetus.
Keywords: First trimester scan,Increased nuchal translucency,Rare genetic syndromes,Syndroma Simpson Golabi Behmel.

LARGE ADNEXAL TUMORS IN ADOLESCENCE

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Introduction: Large adnexal tumors in adolescent girls are rare and often present with vague or atypical symptoms, making early diagnosis challenging. In such cases, distinguishing between benign and malignant conditions is crucial, especially when tumor markers are elevated.

Main Body: An 18-year-old girl with a history of hyperkinetic behavior disorder and intellectual disability presented to the emergency room with right abdominal pain. Due to her cognitive impairment, symptom description was unclear. Initial examination led to urological consultation, where ultrasound revealed two large cystic formations suspected to originate from the pelvic region, along with a positive succussio renalis on the right side. Further imaging, including CT and urography, confirmed large pelvic masses compressing the right kidney and proximal ureter, leading to hydronephrosis.

Gynecological ultrasound reinforced the suspicion of adnexal tumors. Laboratory investigations revealed markedly elevated tumor markers, including CA 125 (1538 U/mL), CA 15-3 (49.81 U/mL), and CA 19-9 (206.9 U/mL), raising concern for malignancy. Given the patient's young age, laparoscopy was preferred option. Intraoperatively, both ovaries were found to be significantly enlarged, with chocolate-colored fluid leaking from their surfaces. Two large cystic capsules were excised with preservation of the ovarian tissue. The histopathology confirmed endometriosis. The patient recovered well postoperatively and initiated continuous use of combined oral contraceptives.

Discussion: Endometriosis can mimic malignancy, especially when presented as large adnexal tumors and elevated tumor markers. In adolescents, it remains a rare but significant differential diagnosis. This case highlights the importance of careful evaluation to avoid overtreatment while ensuring timely intervention for potential malignancy.

Keywords: Endometriosis, Malignancy, Laparoscopy, Adolescents

RISK ASSESSMENT AND CLINICAL MANAGEMENT OF LABOR IN PREGNANT PATIENTS WITH GLANZMANN THROMBASTENIA

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Introduction: Labor management in patients with Glanzmann thrombasthenia (GT) presents unique challenges due to the inherent bleeding risk associated with the disorder. GT, a rare autosomal recessive platelet disorder, is characterized by defective platelet aggregation due to a lack of functional glycoprotein IIb/IIIa complex. This condition increases the likelihood of bleeding complications, making careful pre-labor planning and vigilant management during labor essential for maternal and fetal safety. The approach to labor should involve a multidisciplinary team, including obstetricians, hematologists and anesthesiologists, to ensure adequate hemostatic control and minimize the risk of hemorrhage.

Case presentation: This case explores the challenges and management strategies for a 31 year old primigravida with GT who was diagnosed in 6g.w. after the patient ingested 2 tablets of Aspirin prescribed by her obgyn and started bleeding from the mouth, nose and the skin (petechiae). She undergone genetic testing recommended by a hematologist, and was received the final diagnose. The patient was admitted in our hospital in 35+4 weeks of gestation due to premature rupture of membranes.

Discussion: This presents an added concern for increased risk of bleeding during labor and delivery, both for the mother and fetus. Management strategies for these patients typically include the use of platelet transfusions, antifibrinolytic therapy, and careful monitoring of coagulation parameters. In cases where cesarean delivery is required, special attention should be given to the timing of platelet transfusions and the use of regional anesthesia.

Conclusion: The goal of labor management in GT patients is to balance the risk of bleeding with the need for safe delivery, minimizing both maternal and fetal complications. This review highlights current recommendations and considerations for labor management in patients with GT, focusing on latest therapeutic approaches and the importance of individualized care plans. It also shows that successful outcomes are possible for these patients.

Keywords: Glanzmann thrombasthenia, Labor management, Safe delivery

UNDETECTED SPINA BIFIDA IN EARLY SCREENING: A CASE OF MYELOSCHISIS SUSPECTED, MYELOMENINGOCELE CONFIRMED

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Background: Open spina bifida is a severe neural tube defect that results from the failure of the vertebral arches to close during embryonic development. It is classified into two main types: myelomeningocele (with a protruding sac) and myeloschisis (without a sac), with the latter being more severe. Prenatal repair strategies are similar, but diagnosis, management, and outcomes between subtypes remain underexplored.

Case Presentation: We report the case of a 25-year-old primigravida diagnosed with a fetal spinal defect in the second trimester. First-trimester combined screening performed at another institution indicated low risk for aneuploidies, with a nuchal translucency of 0.9 mm and present nasal bone. Open neural tube defect was not suspected. First-trimester neurosonographic markers such as the brainstem-to-brainstem–occipital bone ratio, intracranial translucency, and the subjective sign of a 'dry brain' were not assessed or documented.

Patient was referred to our institution at 16 weeks and 4 days of gestation after her primary gynecologist noted suspicious findings in the fetal head. Ultrasound revealed an open spinal defect in the sacral region, hydrocephalus with dangling choroid plexus, obliterated cisterna magna, and classic lemon and banana signs. A protruding sac could not be visualized on ultrasound. Prenatal diagnosis of myeloschisis was proposed. Maternal serum alpha-fetoprotein was elevated.

Interventions and Outcome: After thorough counseling, the patient elected to terminate the pregnancy due to the severity of the defect and the unavailability of in utero surgical treatment in our country. Histopathological examination confirmed open spina bifida in the lumbosacral region with ectopic neural tissue and a collapsed sac, consistent with myelomeningocele.

Conclusion: This case highlights the diagnostic challenges of fetal spinal dysraphism and the difficulty in distinguishing between myelomeningocele and myeloschisis prenatally, particularly when a sac is not visualized on ultrasound. Early diagnosis is essential for prenatal counseling, decision-making, and future pregnancy planning.

Keywords: Myeloschisis, myelomeningocele, prenatal diagnosis, spina bifida, brainstem to occipital bone ratio.

PLACENTA ACCRETA SPECTRUM DISORDER IN A SCARRED UTERUS: DIAGNOSTIC AND OPERATIVE CHALLENGES

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Background: Placenta accreta spectrum (PAS) disorders are serious obstetric conditions characterized by abnormal placental adherence or invasion into the uterine wall, often leading to life-threatening hemorrhage at delivery. The increasing prevalence of Caesarean sections and other uterine interventions has contributed to a rising incidence of PAS. Early and accurate antenatal diagnosis is essential for optimal management and improved maternal outcomes.
Case Presentation: We report the case of a 31-year-old woman in her third pregnancy, with a history of two prior Caesarean deliveries. At 34 weeks gestation, ultrasonography initially suggested placenta previa. However, detailed imaging revealed features consistent with placenta accreta, including loss of the retroplacental clear zone, placental lacunae, bridging vessels, and subplacental hypervascularity. At 34.6 weeks, she underwent a scheduled Caesarean delivery. Intraoperatively, placenta accreta was confirmed. Due to massive hemorrhage and the presence of extensive intra-abdominal adhesions from her previous Caesarean sections, an emergency total abdominal hysterectomy was performed, along with adhesiolysis and partial omentectomy.
Management and Outcome: The patient recovered well postoperatively with supportive care, including transfusions, antibiotics, uterotonics, analgesics, and thromboprophylaxis. Histopathology confirmed placenta accreta with significant placental infarction.
Conclusion: This case highlights the importance of early detection and careful surgical planning in PAS, especially in patients with prior uterine surgery. Multiple adhesions from previous Caesarean sections may complicate surgical management, underscoring the need for multidisciplinary team involvement and delivery in specialized centers to reduce maternal morbidity and mortality.
Keywords: Placenta accreta, placenta increta, placenta percreta, PAS, Caesarean section, multidisciplinary care

PREGNANCY OUTCOME AFTER ENDOMETRIAL CARCINOMA

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Patient S.D. underwent an IVF procedure on July 2019 which ended with premature labor CS, lethal outcome of neonatus.
In October 2021. Endometrial polyp was diagnosed and removed by hysteroscopy. HP diagnosis was atypical hyperplasia.
On 27th of December patient underwent new diagnostic hysteroscopy. HP diagnosis was Endometrial carcinoma.
Patient declined suggested hysterectomy and offered hormonal therapy.
In our clinic we placed mirena and started treatment with Zoladex. In September 2022. Control hysteroscopy was performed. HP diagnosis was normal finding of endometrial tissue.
Patients contacted the international European IVF center in planning of pregnancy. On 10th of December patient was turned down with explanation of thin endometrial layer and small ovarian reserve. Also, donation was excluded as an option due to thin endometrium.
On 22nd of December the pregnancy test was positive. We continued with regular pregnancy monitoring, GDM diagnosed. In 39th week of female baby was born by CS, 3700g .
On 4th june of 2024. patient underwent endometrial biopsy – hp diagnosis: hyperplasia complex atypica. 24th of September, patient was treated with hysterectomy and conservation of ovaries.

BLADDER EXSTROPHY

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Bladder exstrophy is a rare and severe congenital anomaly of the urogenital tract. It is classified into three clinical forms:
Incomplete exstrophy,
Complete (classic) exstrophy – part of the extrophio-epispadias complex,
Cloacal exstrophy – the most severe form, often incompatible with life.
Advancements in ultrasound technology have significantly improved the visualization of fetal anatomy during pregnancy. However, certain factors such as fetal position, maternal adiposity, or the rarity of this anomaly itself may limit its prenatal detection.
We present a case of a **newborn male delivered at Sante Plus Hospital in Skopje**, diagnosed with **bladder exstrophy and complete separation of the testes**. Additionally, there was a suspected **right-sided inguinal hernia**. Thanks to the **collaborative efforts** of a gynecologist, pediatrician, and pediatric surgeon, the newborn was appropriately managed and transported to **Italy** for further treatment.
Keywords: urogenital anomalies; bladder exstrophy; congenital malformations.

MACEDONIAN-TURKISH
MEDICAL SYMPOSIUM

DEVELOPMENT AND CURRENT STATUS OF HOME CARE PRACTİCES İN TURKİYE

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Introduction: Home care services refer to the provision of health care services in the individual's own home environment. This definition includes medical care, nursing, rehabilitation, personal care and psychosocial support. The main aim is to perform examination, examination, treatment and rehabilitation procedures in the home environment when the patient has difficulty in reaching the hospital. Especially the increasing life expectancy and elderly population rate have increased the importance of home care all over the world.

Development Process: The modern institutionalization of home care services in Turkiye started in the 2000s. The replacement of the traditional family care approach with institutional home health services gained momentum especially with the Health Transformation Program launched in 2003. Within the scope of this program, home health services were systematized throughout the country with the expansion of the family medicine model. In 2005, the “Regulation on the Provision of Home Care Services” regulated the services to be provided primarily by the private sector, and on February 1, 2010, the Ministry of Health expanded the service with a directive on the provision of home health services within public hospitals. As of July 1, 2005, the Social Services and Child Protection Agency introduced home care pensions, thus providing family-based support for the disabled and elderly in need of care. On February 27, 2015, a new regulation set standards for home health units under the Ministry of Health, and in 2017, the service started to be provided under a hospital-based model.

Current Situation: Today, home care services in Turkiye are provided by public, private and local governments. In the public model, home health care units under the Ministry of Health operate in 81 provinces across the country through approximately 1,014 units. Citizens can request home care through the call center 4443833, which operates 24/7; in line with the applications received, home health teams visit the patient at home and make a comprehensive assessment. In the Private Sector Model, private home care centers have become operational, especially in big cities. In these centers, multidisciplinary teams provide flexible and personalized services by sending doctors, nurses, physiotherapists and other healthcare professionals to patients' homes. However, financing-based constraints limit the expansion of the private sector. Local Governments: Municipalities are developing home care projects that integrate social support and health services. In particular, metropolitan municipalities play an important role in this area by providing services such as home care, house cleaning and personal care for elderly and disabled citizens.According to July 2023 data from the Ministry of Health, the number of registered patients in home health care exceeded 647,000. This is a nearly two-fold increase compared to 2017 and corresponds to 0.75% of the population. It is known that home health teams became even more widespread in the 2020s, providing active services in every province and many districts. In line with this growth, the role of home healthcare within the health system has also gained importance.

Problems and Future Perspective: In the current system, problems such as geographical differences in access to services, financing sustainability, lack of qualified manpower and inter-

institutional integration stand out. Especially in rural areas, problems in accessing home health teams, inadequate technological infrastructure and insufficient integration of digital health applications reduce the effectiveness of the system. In order to overcome these problems, it is necessary to diversify financing models for home care services, train health personnel, expand tele-medicine practices and develop integrated care models that integrate health and social services.

Currently, the proportion of the population over the age of 65 in Turkiye is 10.2%, and this proportion is expected to increase rapidly according to TurkStat and WHO projections. This will lead to a dramatic increase in the demand for home care services. Moreover, the increase in chronic diseases and conditions requiring long-term care will further centralize the role of home care services within the health system.

Conclusion: Home care services in Turkiye have evolved from traditional family care to a modern, institutional and multidisciplinary service model. The process, which started with legal regulations since 2005, gained momentum with the implementation of the Health Transformation Program and the family medicine model, and a service infrastructure that reaches millions of patients today has been established through public, private and local government models. In the future, the need for home care services will increase even more due to the growing elderly population and chronic diseases; therefore, integration, financial sustainability and technological innovations will be critical to increase the effectiveness of home care services.

CHALLENGES OF FAMILY MEDICINE IN NORTH MACEDONIA

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Strengthening the health system has been the focus of the national priorities for North Macedonia in recent years. Many system-wide interventions and reforms have been initiated to improve health and social protection and the quality of care and services. With the support of WHO, a primary health care reform in accordance with the Astana Declaration was adopted by the Ministry of Health in 2019 to be the basis for an overall health reform aiming at achieving universal health coverage. Multidisciplinary teams in primary care, introduction of clinical guidelines in PHC for most common non communicable diseases along with patient pathways, defining task-sharing among health professionals in health teams, and setting standards and indicators for quality and performance monitoring, strengthening e-health were some of the reforms in primary care that were introduced.

But the reality is different. The primary care providers are still organized in solo practices, which hampered the accessibility, quality and efficiency of health services and were not effective in dealing with chronic no communicable diseases, as indicated by the observed high referral rate to specialists. In addition, primary care doctors were not allowed to prescribe certain medicines, or to order specific diagnostic tests to decrease the need for referral to the secondary/tertiary level of care. A study conducted in 2023 supported by WHO showed the presence of health inequalities and vulnerability in North Macedonia.

Nurses in primary care did not have their own portfolio of services and act predominantly as administrators for the practices, rather than as nurses who care for and promote the health of their patients. They mainly assisted doctors in administrative tasks and in dealing with the significant paperwork needed to run the practice.

The high administrative burden impeded full deployment of the existing competencies among primary health care doctors and nurses, who operated without a quality framework and lacked feedback and benchmarking information that could enhance their clinical work.

A large number of patients at certain times of the year, the lack of an appointment system in primary care leads to an unnecessary burden on family doctors with patients.

Although specialization/retraining in family medicine was introduced in 2010, and about 500 general practitioners have completed it, they are still not recognized by the health authorities either for their specialization, financial recognition, or for the increased competencies they can implement.

E-health interventions have also played a crucial role in the country's emergency response to the COVID-19 pandemic like telephone consultations for primary care, e-prescriptions for patients with chronic diseases, telemedicine for consultations. Despite their advantages, e-health system fell short of effectively supporting clinical governance at primary level, as well as introducing telemedicine only as a pilot project didn't find more use in daily work of family doctors.

All those barriers influence to incomplete gate keeping role of primary health care and unnecessary burden on other levels of health care, as well as inappropriate use of human resources. There is dissatisfaction among existing family doctors but also does not attract young doctors to work as family doctors. The number of family doctors is constantly decreasing, partly replenished by young doctors who are waiting for employment in public health or private specializations. Some family doctors, dissatisfied with their status, transfer to public health or enroll in other specialties privately.

Reforms on paper are one thing, but without their implementation in real work we cannot expect improvement in primary care in Macedonia and implementation of the main principals of family medicine that will result in universal access to better health and patient safety.

FAMILY MEDICINE PRACTICE IN TÜRKIYE: EDUCATION AND DEVELEOPMENT STAGES

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Primary healthcare has been considered a fundamental component of effective healthcare systems since the early twentieth century. A strong primary healthcare system responds better to the health needs of the population, ensuring health equity, while also managing healthcare costs in a cost-effective manner (1). Today, healthcare systems face serious challenges such as combating chronic diseases, integrated healthcare services, multimorbidity, rising costs, and an aging population. To overcome these challenges, the importance of a strong primary healthcare system is crucial. Primary healthcare requires research that takes into account the demographic characteristics of the population and the prevalence of diseases. The context of the doctor-patient interaction plays a critical role, and better understanding of this context is necessary. A strong primary care system not only addresses the individual needs of patients but also increases the effectiveness of healthcare systems and improves community health (2,3).

Family medicine in Turkey has undergone significant evolution, transitioning from its early integration into undergraduate medical education to a comprehensive, specialized discipline within the national healthcare system. The first medical school in our country, Tıphane-i Amire and Cerrahhane-i Amire**,** was established in 1827 to train physicians who would provide healthcare services. In 1961, with the enactment of Law No. 224 on the Socialization of Health Services, a new healthcare delivery organization was initiated in Turkey. This system, which placed primary care at the center of the health system and established a referral chain, emphasized the importance of primary care long before the Alma-Ata Conference.

The World Health Organization (WHO) and the World Organization of Family Doctors (WONCA) defined primary healthcare, incorporating the characteristics of family medicine, at the 1978 Alma-Ata Conference. They declared that all governments must develop primary care and place it at the center of their healthcare systems to achieve the Health for All by the Year 2000 goal (7). Following the Alma-Ata Declaration, global efforts to strengthen primary care began. To support this objective, departments of family medicine were established in universities to train specialists in primary care.

In Turkey, postgraduate education in family medicine was included in the Medical Specialization Regulation in 1983 and officially started in Training and Research Hospitals in 1985. The first Department of Family Medicine was established in Gazi University Faculty of Medicine in 1984. In 1993, the Council of Higher Education (YÖK) decided to establish Departments of Family Medicine in medical faculties, leading to an increase in their numbers across universities. The professional organization of family medicine specialization began in 1990 with the establishment of the Turkish Association of Family Physicians Specialists (Türkiye Aile Hekimleri Uzmanlık Derneği). The specialization training, which began in 1983, continues to expand today in training and research hospitals as well as university hospitals(4).

A unique Family Medicine Model has been developed for our country, considering examples from other countries as well as the conditions and needs of our nation, as a means to achieve the goals of the Health Transformation Program. This model aims to strengthen primary healthcare services and organize and deliver them in a high-quality, effective, efficient, and equitable manner. Within

this scope, the initial regulations regarding the implementation of family medicine were introduced, and the fundamental procedures and principles were established through the enactment of the Family Medicine Pilot Implementation Law No. 5258, published in the Official Gazette No. 25650 on November 24, 2004; the Regulation on Family Medicine Pilot Implementation, published in the Official Gazette No. 25867 on July 6, 2005; and the Regulation on Payments and Contract Conditions for Personnel Employed by the Ministry of Health within the Scope of the Family Medicine Pilot Implementation, published in the Official Gazette No. 25904 on August 12, 2005 (5,6,7).

The pilot implementation began in 2005 in the province of Düzce. In 2006, it was expanded to 6 provinces, followed by 7 provinces in 2007, 17 provinces in 2008, 4 provinces in 2009, and 46 provinces in 2010. Based on evaluations of service needs in each province, the nationwide implementation of the family medicine system was completed by the end of 2010 (8).

Initially, exposure to primary care concepts during medical school laid the groundwork for a new generation of practitioners, while the subsequent introduction of postgraduate training programs provided focused, competency-based education in community health, preventive care, and clinical management. These structured training pathways have been bolstered by continuous professional development initiatives, ensuring that practicing family physicians remain adept in addressing contemporary health challenges. Concurrently, strategic policy reforms and international collaborations have enriched the curriculum and clinical practice standards, promoting evidence-based approaches and patient-centered care. As Turkey continues to refine its primary care model, further advancements in interprofessional education and research integration are anticipated, aiming to enhance both the quality of care and health outcomes. This evolution underscores the vital role of family medicine in reinforcing the healthcare system and meeting the dynamic needs of the population. This abstract examines the developmental stages and educational reforms that have shaped family medicine practice in Turkey.

THE DEVELOPMENT AND CURRENT STATUS OF PALLIATIVE CARE PRACTICES IN TURKIYE

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Palliative care was defined as “care provided with the aim of improving the quality of life of patients facing problems arising from a life threatening illness and preventing or eliminating all physical, psychosocial and spiritual problems, especially pain, through early recognition and assessment” by the World Health Organization (WHO). Then the emphasis of “patients’ families should also be supported psychologically, socially, spiritually, and physically during the grieving period after the patient’s death” was considered during the revisions.

Although the history of home health care facilities extends during the ancient times in some informal ways in Turkish history, and the Ottoman Sultan Abdulhamid II ordered the establishment of the Darulaceze (Poorhouse), which provided a warm home for the elderly to spend the rest of their days; but planned and formal implementation of palliative care services were a rather new process. The concept of palliative care was developed in 2010 along with the establishment of the National Cancer Control Program in Turkey (Keskinkilic et al., 2016). All stakeholders came together under the umbrella of a National Cancer Advisory Board and launched the PalliaTurk project with the support of the Turkish Ministry of Health, and launched the PalliaTurk project. Actually there are more than 6000 registered inpatient palliative care beds all over the country. Turkey is a country with a population of 86,708,278 and an annual growth rate of 1.09%. Life expectancy for both sexes is 78.5 years due to Worldometer, 2020. Considering the burden of life threatening diseases and increasing life expectancy at birth, it can be stated that the actual need for palliative care in Turkey will be much greater in the near future. Moreover urgent improvements about community based palliative care system is needed.

Although palliative care practices and legislations in Turkey have taken great attention recently, considering the burden of life threatening illnesses and the increasing life expectancy at birth, it can be stated that the actual need for palliative care in Turkey will be much greater in the near future.

The development and current status of Turkish Palliative Care System is discussed in detail during the congress panel presentation.

CANCER SCREENINGS IN PRIMARY CARE IN TÜRKIYE

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Cancer is an important public health problem both in the world and in our country. In Türkiye, cancer is the second leading cause of death after cardiovascular diseases. Almost one in every five deaths occurs due to cancer. According to 2022 data in Türkiye, the number of new cases is approximately 240 thousand, while the number of deaths from cancer is approximately 130 thousand. This shows us the importance of cancer (1,2).

According to 2023 data: The first three most common cancers in our country are breast, lung and prostate cancers. Additionally, the most common cancers that lead to mortality are lung, breast and prostate cancers. The 3 most common cancers seen in women in our country are; breast, thyroid, colorectum, and in men; lung, prostate, colorectum cancers (2).

Cancer screenings in Turkey are implemented with two different methods: *Community Based Screening* **(**Screening of at least 70% of the target population of a specific region that is suitable for screening) and *Opportunistic Screening* (Screening of individuals who apply to a health institution for any reason) (3).

Türkiye has national cancer screening programs coordinated by the Ministry of Health. These include breast cancer screening via mammography (women aged 40-69), cervical cancer screening using HPV testing and Pap smear (women aged 30-65), colorectal cancer screening using fecal occult blood tests and colonoscopy (individuals aged 50-70).

National Breast Cancer Screening Standard: The gold standard screening method that has been proven effective in breast cancer screening is mammography. In clinical breast examination, (clinical breast examination once a year for those over 40 years of age); Inspection of both breasts, axillary examination and supraclavicular examination, palpation of the breasts, examination of the nipple and areola must be performed.

National Cervical Cancer Screening Standard: According to national screening standards; it is performed every 5 years with HPV test and pap-smear for women between the ages of 30-65. Community-based cervical cancer screening, which was performed with pap smear in primary health care institutions, started to include HPV testing as of August 2014.

National Colorectal Cancer Screening Standard: Colorectal cancer screenings in Türkiye started in 2013. For women and men between the ages of 50-70, fecal occult blood testing should be done every 2 years. After the age of 50, colonoscopy is recommended every 10 years. Screening is terminated for women and men aged 70 who have negative fecal occult blood tests in the last two stools.

Screening in high-risk groups: Individuals with first-degree relatives with colorectal cancer. Individuals with a history of adenomatous polyps, ulcerative colitis, Crohn's disease, hereditary polyposis or non-polyposis syndrome, screening begins at age 40 (7).

Cancer Early Diagnosis, Screening and Training Centers (KETEM): Especially In our country, cancer screenings are executed by Cancer Early Diagnosis, Screening and Training Centers (KETEM). KETEM's operate with the motto "Early diagnosis saves lives!" and execute screening programs related with breast, cervical and colorectal cancers. Currently there are 368 KETEM's in the country and at least one in each province. In these centers, doctors, nurses, midwives, x-ray technicians and medical technicians who take necessary training on protection and screening for cancer, are employed. Employees are also trained in communication and health education. For screenings of cervical and breast cancers, women are invited (by letter or phone) for necessary examinations and tests.

SIMULATION AS AN EDUCATIONAL METHOD FOR PRIMARY CARE TEAMS

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Urgent and life-threatening conditions in primary health care are not common. That is why the education of the medical teams is needed, where they would renew their knowledge for a certain period of time in a safe environment. In this way, the competencies of healthcare professionals will be improved, errors will be reduced and the quality of patient care will be improved. Objective: to present the effects of education with simulation of medical teams from primary health care for urgent and life-threatening conditions in accordance with the Erasmus + Project TRANSSIMED.
Methods: Retrospective cross-sectional study of evaluation lists.
Content: In the period from November 2023 to January 2025, 94 trainings on BLS and 34 trainings on anaphylaxis were held. Total number of BLS participants present was 455, while anaphylaxis had 134 participants. The education was attended by teams of various medical professionals. Both educations were evaluated with the highest rating of 5 by 95% of the participants for the overall evaluation of the workshop. Nearly 94% of participants strongly agree that simulation as an educational method provides the best and most realistic approach to improving performance in dealing with health emergencies in everyday work. 95.4% of the participants strongly agree that the education of medical teams (doctor and nurse), ensures faster, better quality and safer management of emergency health conditions in primary care clinics.
Conclusion: By incorporating simulation as an educational method in the process of continuous education of primary care medical teams, they are given the opportunity for experiential learning in a safe environment of conditions that rarely occur in their offices without putting patients at risk.

ADAPTATION OF ENTERAL NUTRITION DIAGNOSIS AND TREATMENT GUIDE FOR PRIMARY CARE: THE CASE OF TURKEY

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Aim: This thesis aims to adapt globally utilized enteral nutrition guidelines to the primary health care setting in Turkey.

Methods: A literature search was conducted to identify existing guideline development frameworks using the terms "guideline adaptation" and "guidelines for guidelines" in PubMed (1966–March 2024), the Cochrane Library, and Google. Additionally, relevant enteral nutrition guidelines were searched using the terms "enteral nutrition," "nutrition," "nutrisyon," and "enteral nutrisyon."

The "Guideline Adaptation Guide for Turkey," developed by the Evidence-Based Medicine Association (2016), was chosen as the primary framework. The adaptation process followed the step-by-step methodology outlined in this guide. After completing the first six setup steps, the adaptation phase commenced with Step 7 (identifying health questions), Step 8 (reviewing related guidelines and documents), and Step 9 (screening obtained guidelines). The guidelines were then assessed using the "Evaluation Module" and "Decision and Selection Module," leading to final recommendations. The study concluded with Step 17, and a draft of the adapted guideline was prepared.

Results: Among four evaluated guidelines, only Guide 2 received unanimous approval for implementation, as assessed using the AGREE II scale. Guide 4 was accepted with modifications, while no guidelines were excluded. Two health questions in Guides 1 and 4 lacked comprehensive responses. Most recommendations were found applicable to primary care, with a few exceptions. A total of 88 recommendations were developed, 29 requiring minor modifications. Twelve recommendations were deemed unsuitable for Turkey and rejected, while two additional health questions were incorporated.

Conclusion: A preliminary adaptation of the "Enteral Nutrition Guidelines," customized for Turkey’s primary health care setting, was completed for external review and endorsement.

FAMILY MEDICINE PERSPECTIVE ON THE DISEASE MANAGEMENT PLATFORM IN TURKİYE

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INTRODUCTION: The inclusive approach in family medicine includes the ability to manage a large number of complaints and pathologies simultaneously with both acute and chronic health problems of the individual, to improve health and well-being by using appropriate health promotion and disease prevention strategies, to manage and coordinate health improvement, prevention, treatment, care, palliation and rehabilitation.The Disease Management Platform (HYP) is an online platform developed to control the symptoms and signs of the diseases of individuals with chronic diseases and to prevent individuals from experiencing loss of function and becoming disabled. It facilitates ensuring early diagnosis of chronic diseases by performing periodic screenings and periodic monitoring of diagnosed patients in line with the recommendations of evidence-based medicine guidelines, ensuring appropriate treatment and early detection of complications. This platform has been actively used in Türkiye since 2019. Our aim in the statement is to share the disease management platform applied in our country in the international literature.

GENERAL INFORMATION: In our country, the HYP platform is carried out with screening and risk evaluation, patient-specific risk determination, lifestyle recommendations, clinical indicator targets, preventive treatment recommendations. In the disease monitoring process; treatment plan access, reminders for compliance with the treatment plan, educational materials are used. Self-management support for patients is provided with clinical guidance automation, patient-specific treatment plan recommendations, integrated care support preparations. Clinical evaluation and performance management are monitored with the latest status of disease-based clinical indicators and registered patient follow-up. In the HYP system, parameters such as hypertension, diabetes mellitus, obesity and elderly evaluation are followed. In these follow-ups, the follow-up summary of the patient is first seen. In this summary, the previous treatments of the patient are shown. In addition, the patient's lipid values, fasting blood sugar value, blood pressure chart and lifestyle data (waist circumference, number of steps, body weight, height, etc.) are monitored. Then, the scan is started, the current data of the patient is entered into the system and the necessary recommendations are made. A system consisting of modules is used when performing patient scans in HYP. First of all, there is a "doctor dashboard" module in this system. This module includes patient lists, registered patient follow-ups, invited by SMS of patients to examination, medical target analysis, follow-up transaction records and statistics, physical examination findings, family health worker management and help menu. Another is the “patient dashboard” module and patient parameters are observed in this module. Chronic disease modules are included for disease follow-up. For example, in the hypertension screening module; physical examination, graphical representation of anamnesis information, risk assessment module, hypertension diagnosis, staging, following the process, seeing drug reports, epicrisis information, target management, drug treatment and follow-up, new drug recommendation, risk assessment in pediatric patient, diagnosis, examination request. The lifestyle recommendations

module includes presenting healthy nutrition recommendations and recommending recommendations for quitting tobacco and alcohol.

DISCUSSION AND CONCLUSION: The HYP system is a system that ensures regular control of the follow-up of chronic diseases with data and can show the preventable status of patients. It facilitates the knowledge and follow-up of the family physician about the patient. However, the limitations in this practice cause difficulty in performing in an outpatient environment considering the density of the number of daily patients in outpatient applications in the family medicine practice in our country and due to the fact that the follow-up of a person in the HYP application takes about 30-35 minutes. For this reason, the system cannot be used effectively. In order to use the system more actively, the number of individuals per family doctor and the number of daily polyclinics should be reduced to the ideal numbers.

EVALUATING CANCER PATIENTS FROM A FAMILY PHYSICIAN'S PERSPECTIVE

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Palliative care is an interdisciplinary medical caregiving approach aimed at optimising quality of life and mitigating suffering among people with serious, complex, and often terminal illnesses. People are more likely to talk to their Family Physician about end of life than any other profession al, but only 33% of Family Physicians are confident to initiate a discussion with a patient about end-of-life issues. We as Family Physicians have a pivotal role in providing palliative and end of life care for our patients, their carers and families. We are deeply embedded in the community we serve and are a focal point for the community, multidisciplinary teams, and specialist providers. Family Physicians know their local population and are in prime position to engage in public health agendas in palliative and end of life care. We hold a role in recognising that a person is nearing the end early, in order to devise a care plan in place, and avoid unnecessary suffering for the patient and have the adequate support that is needed in place. As patterns of illness change, due to advances in medical treatments and technology, the role of the family physician in palliative care and end of life care is ever more challenging. We will delve into the three distinct forms of palliative care: the physical aspects, addressing pain, anxiety, distress, breathlessness, nausea, vomiting and other symptoms that might arise. The psychological aspects, providing emotional support; and the spiritual aspects, acknowledging the beliefs and values that give life meaning and paying respect to that whatever they might be. How these can be managed in the community and the importance of having a multidisciplinary approach is emphasised here, with the involvement of the palliative care team to address the dif ferent issues present. As family physicians we need to be confident in recognising these symptoms so they can be ad dressed and managed accordingly. Confidence in prescribing medication to help with common symptoms that normally arise towards end of life is important, as this will avoid unnecessary dis tress for the patient. As caring for theses patients can be complex if is important that it is done in a multidisciplinary approach and Palliative care teams are involved. These are made up of professionals each having a specific role to help out with issues encountered towards the end of life. These normally consist of a medical doctor, nurse, psychologist, social worker, physiotherapist, occupational therapists and a spiritual person. In Malta we have an NGO which is run by volunteers by the name of HOSPICE. These provide care to terminally ill patients. The patient normally has direct contact with them and they address what the situation is and deal with it accordingly in the best interest of the patient. Some people need additional specialist care. This may be provided by consultants specialised in palliative care or family physicians specialised in this field. It is important that a clear plan is de vised in order to avoid unnecessary suffering for the patient and the ceiling of care is devised. Shared decision making and finding out the level of involvement the patient wishes to have at the outset plays an important role. Patients should be informed of what they are to expect in due course and given reassurance that these will be dealt with accordingly if they arise. To respond adequately good lines of communication & close multidisciplinary teamwork is need ed. Resuscitation can lead to stress on the doctor, patient and also the family. Discussion about this is important to be talked about to find out future wishes, as well as being in the chance to plan and address fears and expectations and also for unwanted and clinically inappropriate treatments are not administered. As family physicians we need to be able to understand that care for one another at times of crisis and loss is not simply a task for health and social care services but it's everyones responsibility.

THE ROLE OF PATIENT PARTICIPATION ON HEALTH CARE QUALITY: A COMPARATIVE STUDY IN PRIMARY AND TERTIARY CARE SERVICES

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Izmir Katip Çelebi University Faculty of Medicine Department of Family Medicine Research Study, Izmir, Türkiye, 2025

Objective: This study aims to examine the impact of patient engagement on the quality of healthcare services and to identify differences in this impact between primary and tertiary healthcare settings.

Methods: This cross-sectional study was conducted between October 1, 2024, and January 1, 2025, with 306 voluntary participants who applied to a family health center and the Family Medicine outpatient clinics of a Training and Research Hospital. Data were collected through a face-to-face survey, covering sociodemographic information, general health status, patient engagement and communication, digital health and technology, healthcare quality and satisfaction, support for increasing patient engagement, and privacy and security. Data analysis was performed using SPSS 22. The normality of data distribution was assessed with the Kolmogorov-Smirnov test. Categorical variables were expressed as numbers, percentages, and proportions; normally distributed numerical variables were presented as mean ± standard deviation; and non-normally distributed numerical variables were presented as median, minimum, and maximum values. Between-group comparisons were performed using the chi-square test based on the characteristics of the variables.

Results: A total of 306 patients participated in the study, with 194 (63.4%) of the surveys conducted in tertiary care settings. The mean age of the participants was 43.2 ± 13.9 years. Among the participants, 28 (9.2%) reported never being involved in the decision-making process regarding their treatment plan with their doctor, and 20 (6.5%) stated that they had never discussed treatment options with their doctor or healthcare provider and had not been informed about possible outcomes. Only 8 (2.6%) participants indicated that having a say in their treatment plan was not important to them. No significant difference was found between primary and tertiary care patients regarding the importance of having a say in their treatment plan, the impact of healthcare providers' information on their health decisions, or the effect of understanding the treatment plan on adherence (p=0.540; 0.193; 0.524). Similarly, no significant difference was found between primary and tertiary care patients in terms of being involved in the decision-making process with their doctor or the ability to express concerns to the healthcare team (p=0.997; 0.777).

Conclusion: Our study indicates that while the majority of patients consider having a say in their treatment plan important, their level of engagement remains limited. No significant differences were observed between primary and tertiary care patients in terms of patient engagement, communication with healthcare providers, and involvement in the treatment process. These findings suggest that healthcare policies and practices aimed at increasing patient engagement should be implemented consistently across all levels of care.

CANCER SCREENING IN PRIMERY CARE IN TURKIYE

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Introduction: Cancer is a condition that affects millions of people worldwide, with millions of new cases emerging every year. In 2022, the global number of newly diagnosed cancer patients was 19,976,499, with 9,743,832 deaths due to cancer. In Turkey, these figures were 240,013 newly diagnosed patients and 129,672 cancer-related deaths. Globally, lung, breast, and colorectal cancers are the most common types, with similar statistics observed in Turkey. In Turkey, screenings for breast, colorectal, and cervical cancers are provided free of charge in primery care and patients are referred to higher-level facilities when necessary. The aim of this presentation is to share the primary care cancer screening programs in Turkey with the international scientific community.

General Information: The five most common cancer types in Turkey are lung, breast, colorectal, prostate, and thyroid cancer, which together account for more than half of all cancer cases. Among men, the five most common cancers are lung, prostate, colorectal, bladder, and stomach cancer. Among women, the most common cancers are breast, thyroid, colorectal, lung, and uterine cancer. To increase early diagnosis rates and reduce mortality, regular screenings for cervical, breast, and colorectal cancers are conducted in primary care centers in Turkey. For this purpose, Cancer Early Diagnosis, Screening, and Training Centers (KETEMs) have been established. These centers are responsible for free screenings, patient education, and referral of patients for advanced examinations. KETEMs operate in coordination with primary care services. The primary physician in the first level of care refers eligible patients to KETEM, monitors their results, and plans treatment when necessary. In Turkey, mammograms are performed every two years for women aged 40-69. Pap smear and HPVDNA tests are conducted every five years for women aged 30-65. For individuals aged 50-70, fecal occult blood tests are performed every two years, and colonoscopies are planned every 10 years.

Discussion and Conclusion: KETEMs and primary care physicians regularly share patients screening information and maintain records within the framework of the National Cancer Screening Program, ensuring proper follow-up. Their common objectives are early diagnosis, patient education, and coordination. The cancer screening program in Turkey is offered free of charge to all citizens.

THE ROLE OF GENERAL PRACTITIONERS IN SEXUAL AND REPRODUCTIVE HEALTH CARE IN MALTA

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GP Malta

General Practitioners (GPs) play a crucial role in providing sexual and reproductive health services in Malta, serving as the first point of contact for patients seeking confidential and preventive care, contraception counselling, and management of sexually transmitted infections. However, gaps in training, limited resources, and cultural barriers create challenges, most especially in key populations such as migrants, LGBTIQ+ persons and persons with disabilities. A national sexual health strategy developed this year underscores the pivotal role of GPs in delivering comprehensive sexual health services. The strategy emphasizes the integration of sexual health into primary care, advocating for enhanced training programmes to equip GPs with the necessary skills and knowledge. It also highlights the importance of resource allocation and the development of clear referral pathways to specialized services. By empowering GPs through continuous professional development and fostering collaboration with community organizations, a more inclusive and effective sexual and reproductive health framework can be created which in turn will improve sexual health outcomes, reduce stigma, and ensure more comprehensive patient-centred care.

EVALUATION OF BREAST CANCER AWARENESS AND RISK LEVELS IN WOMEN

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Objective: It was aimed to evaluate the breast cancer and risk status of women aged 18-49 in Selçuk University Faculty of Medicine family medicine outpatient clinics.
Methods: The population of the study, which was designed as a cross-sectional and descriptive, consists of female individuals between the ages of 18-49 who applied to Selçuk University Faculty of Medicine Family Medicine outpatient clinic for any reason.
Patients who met the inclusion criteria and agreed to participate in the study by signing the voluntary consent form were included in the study without randomization. People who meet the inclusion criteria for the study; A 9-question sociodemographic information form a 13-question breast cancer awareness scale (BCAM) and a breast cancer risk assessment form were applied.
Results: We planned to reach 217 participants in our study. We have reached 119 participants so far. The average age of the participants was 31.55± 8.08 years. 63.9%(n=76) of the participants are university graduates. 54.6%(n=65) are married. 55.5%(n=66) of the participants have no children, 17.6% (n=21) have one child, 21.0%(n=25) have two children. 54.6%(n=65) of the participants are healthcare workers, 13.4%(n=16) are civil servants and 11.8%(n=14) are housewives. 99.2%(n=118) of women have no history of breast cancer, 17.6%(n=21) have a history of breast cancer in a maternal relative (mother, aunt, sister). According to the results of the women's risk assessment form, the risk score is 126.47±43.47.
Conclusion: In this cross-sectional study, BCAM breast cancer awareness scale and breast cancer risk assessment form were applied to diverse and representative women in the 18-49 age group; It is planned to raise awareness about the risk factors, symptoms and screening methods of breast cancer and to evaluate the risk of breast cancer.
Identifying people at risk and taking early precautions will help improve people's quality of life before irreversible losses occur.
Keywords: Breast Cancer, Awareness, Risk

Symposium: Medical Education and Health Systems in Balkan Countries

MEDICAL EDUCATION AND HEALTH SYSTEM IN NORTH MACEDONIA

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President of Macedonian Medical Association

North Macedonia's Healthcare System

North Macedonia’s healthcare system is a mix of public and private providers that offer a wide range of medical services, ensuring accessibility for its citizens. The system has been shaped by historical developments, evolving health needs, and ongoing reforms aimed at enhancing quality and efficiency. The government plays a central role in funding and managing the public healthcare infrastructure, while private healthcare providers complement public services by offering specialized care. The country is committed to improving medical education and healthcare delivery, with a focus on primary care, hospital services, and specialized medical education.

Medical Education in North Macedonia

North Macedonia is home to several well-established institutions that provide medical education and train healthcare professionals. The primary institution offering medical degrees is the Faculty of Medicine at Ss. Cyril and Methodius University in Skopje, which is the largest and most prominent medical faculty in the country. Other institutions, such as the Faculty of Medical Sciences at Goce Delcev University in Shtip and the Faculty of Medical Sciences at State University in Tetovo, also contribute significantly to the education and training of future doctors.

The medical education system in North Macedonia consists of a six-year undergraduate program leading to a Doctor of Medicine (MD) degree. Following completion of their medical degree, students must undergo a mandatory one-year internship period to gain practical experience in clinical settings. Afterward, aspiring specialists enter residency programs in their respective fields. The residency period varies depending on the specialization, typically lasting between three to six years. Additionally, many medical professionals pursue postgraduate training and continuing education to stay updated with medical advancements.

Healthcare Infrastructure and Services

The healthcare system in North Macedonia is primarily based on a unified structure that includes both public and private health services. Public healthcare is financed mainly through government budgets and the Health Insurance Fund of North Macedonia, which provides coverage for a broad range of medical services. There is also a private healthcare sector that offers specialized treatments, often with shorter waiting times and higher quality services. However, private healthcare remains expensive compared to public services.

Hospitals and Health Centers

North Macedonia has a network of healthcare facilities, including 59 public hospitals (general and specialized), 34 private hospitals, and over 70 primary healthcare centers spread across the country. The capital city, Skopje, is home to several major hospitals, such as:

University Clinic for Surgical Diseases “Sveti Naum Ohridski”

University Clinic for Gynecology and Obstetrics

University Clinic for Cardiology

General Hospital in Skopje

These hospitals provide a wide array of services, including emergency care, specialized surgeries, and long-term care for chronic conditions.

Apart from hospitals, the country operates numerous health centers in urban and rural areas, offering primary care services, vaccinations, maternal and child health services, and general check-ups. These centers are crucial for promoting preventive healthcare and managing chronic diseases.

Healthcare Workforce

As of recent data, North Macedonia has a total of approximately 7,800 doctors, including:

4,200 specialists, covering fields such as internal medicine, gynecology, pediatrics, surgery, and radiology.

3,600 general practitioners (GPs) who provide essential healthcare services such as routine check-ups, preventive care, and referrals to specialists.

12,500 nurses and midwives, forming the backbone of patient care services in both hospitals and primary care centers.

The country has an average doctor-to-population ratio of approximately 3.8 doctors per 1,000 inhabitants, which is in line with regional standards but still lower than the EU average.

Challenges and Reforms

While the healthcare system in North Macedonia provides comprehensive services, it faces several challenges:

Financial Constraints: The public healthcare system operates with an annual budget of around €500 million, which limits investment in new technologies and infrastructure improvements.

Long Waiting Times: Due to limited resources and a shortage of certain medical specialists, patients often experience delays in receiving specialized care.

Brain Drain: Many highly skilled medical professionals migrate to Western Europe for better salaries and working conditions, creating a shortage of healthcare workers.

To address these issues, the country has been undergoing healthcare reforms aimed at:

Expanding primary healthcare services to reduce hospital overcrowding.

Improving hospital infrastructure, with planned investments of over €100 million in the next five years.

Increasing health insurance coverage to ensure better access to care.

Enhancing medical education and training programs to produce highly skilled healthcare professionals who can meet the growing demands of the healthcare system.

Conclusion

North Macedonia’s healthcare system is a robust, multifaceted structure that combines a well-established medical education system with an extensive network of healthcare providers. The country’s commitment to improving the quality and accessibility of healthcare, as well as its focus on producing competent medical professionals, ensures a solid foundation for future healthcare development. Despite facing challenges such as funding limitations, resource allocation, and medical workforce migration, North Macedonia’s health system is on the path to modernization, with ongoing reforms aimed at providing better care for its population.

THE STATE OF MEDICINE IN THE REPUBLIC OF CROATIA

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Introduction: Medicine and the state of medicine in the Republic of Croatia is a topic of great interest. In the Republic of Croatia, the professional association of doctors is the Croatian Medical Association, and the professional association of doctors is the Croatian Medical Chamber.

The Croatian Medical Chamber (HLK) is a professional organization of healthcare professionals with the status of a legal entity (Health Care Act, Article 239).

The Medical Act, in Article 35, stipulates that physicians who work in direct healthcare activities are required to join the Croatian Medical Chamber, as an autonomous and independent professional organization with the status of a legal entity and public authority.

Public powers of the Croatian Medical Association (Medicine Act, Article 37):

1) maintains the Directory of Physicians in the Republic of Croatia
2) grants, renews and revokes permits for independent practice,
3) performs professional supervision over the work of physicians,
4) determines the lowest price for the work of private physicians and
5) approves individual prices for medical services of private physicians

Discussion: General conditions for practicing medicine (Medicine Act, Article 6):

1) A diploma from one of the medical faculties in the Republic of Croatia or a recognized diploma from a foreign medical faculty, passed professional exam, or specialist exam, or narrow specialty exam for independent work in certain specialist or narrow specialty professions,
2) citizenship of the Republic of Croatia,
3) knowledge of the Croatian language (with the exception of performing occasional diagnostic and therapeutic procedures in which verbal communication with the patient is not necessary or is possible with an intermediary),
4) registration in the Directory of Physicians of the Croatian Medical Association,
5) approval for independent work (license).

Conclusions

In the Republic of Croatia in 2024, 15,324 physicians were registered. Of these, 14.2% were over 60 years of age (2,175).

Specialists account for 64% of physicians (9,844 physicians).

The largest number of physicians is concentrated in large cities, primarily in Zagreb, Rijeka, Split, Osijek and in the Istrian region.

In the field of medicine, there is a constant dynamic, related to the redefining of the status of medicine in society, going abroad, and the prospects of medicine. The time we live in and the time ahead of us are full of challenges that will largely determine the future and prospects of medicine.

ADVANTAGES AND DISADVANTAGES OF THE SLOVENIAN HEALTHCARE SYSTEM

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Here is a short insight into the Slovenian healthcare system, dissecting its advantages and disadvantages to gain an easier understanding of its functioning.
The most important Advantages are as follows.
Universal Coverage Featuring Comprehensive Benefits:
Slovenia boasts a universal healthcare system that ensures every citizen and resident has access to a comprehensive range of medical services. This inclusive approach fosters social solidarity and promotes the health and well-being of the entire population.
High-Quality Care and Well-Equipped Facilities:
With a well-trained healthcare workforce and modern medical facilities, Slovenia delivers high-quality healthcare services. Patients can expect timely and effective treatments, contributing to positive health outcomes and patient satisfaction.
Emphasis on Preventive Care:
The Slovenian healthcare system prioritizes preventive measures, including regular screenings and health education initiatives. By focusing on prevention, it aims to reduce the incidence of diseases and alleviate the burden on the healthcare system.
Efficient Primary Care Network:
Primary care plays a pivotal role in the Slovenian healthcare system, offering patients easy access to general practitioners and practically all basic healthcare services. This emphasis on primary care ensures continuity of care and facilitates early intervention for health issues.
Affordable Access to Medications:
Slovenia has implemented measures to ensure affordable access to medications for its citizens. Government subsidies and pricing regulations help to keep medication costs manageable, easing the financial burden on patients.
There are also some Disadvantages of the healthcare system, such as…
Long Waiting Times for Certain Procedures:
Despite universal coverage, the Slovenian healthcare system grapples with long waiting times for certain medical procedures and specialist consultations. Delays in accessing care can lead to patient dissatisfaction and compromise health outcomes.
Resource Constraints and Underfunding:
Limited resources and underfunding pose significant challenges to the Slovenian healthcare system. Shortages of medical personnel, equipment, and facilities can strain the system's capacity and hinder the delivery of timely care.
Regional Disparities in Healthcare Provision:
Disparities in healthcare provision persist between urban and rural areas in Slovenia. Urban centers typically have better access to healthcare facilities and services, exacerbating inequalities in health outcomes and access to care.
Bureaucratic Complexity and Administrative Burdens:

Bureaucratic inefficiencies and administrative burdens can impede the smooth functioning of the Slovenian healthcare system. Complex administrative processes may delay care delivery, increase costs, and frustrate healthcare professionals and patients.

Limited Role of the Private Sector:

While public healthcare is accessible to all, the private sector's role in Slovenia's healthcare system is limited. This may restrict patient choice and innovation in healthcare delivery and hinder competition and efficiency improvements within the sector.

In summary, we can claim, that the Slovenian healthcare system exhibits commendable strengths, including universal coverage, high-quality care, and a focus on prevention. However, it also faces challenges such as long waiting times, resource constraints, and regional disparities. Addressing these challenges requires concerted efforts from policymakers, healthcare professionals, and stakeholders to ensure equitable access to quality healthcare for all Slovenian citizens and residents.

MEDICAL ORGANIZATIONS IN SERBIA

Historical Development and Their Role in Protecting the Medical Profession

NENAD ĐOKOVIĆ

In the distant past, from the Stone, Bronze, and Iron Ages, through the ancient and Roman periods, the development of human civilization in combination with the region's connection to the "Via Militaris," brought rapid changes, as well as wars, wounded soldiers, epidemics, and mass and individual suffering. The medicine of that time was based on the influences of Plato, Aristotle, Asclepius, Hippocrates, and their followers. Later, under the influence of Salerno and Montpellier, European and Serbian medieval medicine developed.

Thanks to Rastko Nemanjić, the first Serbian hospitals were founded in Serbia, and typika were written for them. It is noteworthy to mention the existence of schools for medical practitioners, such as the "Great School of King Milutin" in Constantinople with the famous teacher Jovan Agriopulus, whose origin was from Pomoravlje. In line with this, the "Hilandar Medical Codex" should also be highlighted, which includes a collection of medical texts and knowledge from ancient, Roman, as well as Arab medicine.

The treatment that a Serbian medieval patient could receive at that time did not differ from the treatment received by patients in other parts of Europe, where doctors were being educated extensively.

Historical circumstances in the Balkans led to further changes, namely the decline of European medicine, when the era of folk medicine began, followed by religious medicine, as the poor sought help where mercy awaited them – in monasteries and temples.

Social movements, the First and Second Serbian Uprisings, had far-reaching consequences on the health system in Serbia. Consequently, there were no doctors until 1819, when Konstantin Aleksandridi arrived in Serbia.

By the Turkish Hatt-i sharif of 1830, Serbia was allowed to build hospitals, and accordingly, Prince Miloš entrusted the care of the health service in the First Serbian Constitution to the Ministry of Internal Affairs.

The first attempts to form health institutions were seen in the establishment of sanitary corridors in cases of large cholera and plague epidemics, in the form of contumacies-quarantines and *spitals*, which had some elements of hospitals, in Kragujevac in 1832 and Požarevac in 1833. Due to the lack of staff and doctors at that time, their existence was short-lived.

In 1833, Dr. Karlo Pacek arrived in Serbia and founded a medical reading room, followed by Dr. Emerik Lidermajer, who became the personal physician of the prince and founded the first garrison hospitals. He can also be considered the first physiatrist in Serbia, given that he wrote and published a work entitled "Description of Mineral Waters in Serbia."

On November 20, 1860, despite numerous obstacles and previously failed attempts in 1844 and 1853, the first permanent civilian hospital was founded in Kragujevac on the initiative of Dr. Ljubomir Radivojević. It has never ceased to operate since then and today it is known as the University Clinical Center Kragujevac.

The development of the health system, with the consent of the rulers, contributed to Serbia having 79 doctors in 1879, most of whom were foreigners.

On the initiative of a group of doctors, due to numerous problems in work, financing of medical practice, and protection of public health, the Serbian Medical Society was formed in Belgrade on May 4, 1872. At the founding assembly, a declaration and statute of the society were adopted, outlining three main directions of its activity: 1. continuous professional development – doctor education, 2. organization of the health service, and 3. analysis and care of public health.

Over time, numerous doctors of that era identified the need to adopt binding rules for all members of the medical profession, so as to improve their medical practice and ensure their work safety. Therefore, such individual professional associations were formed in European countries – the General Medical Council in Great Britain in 1858, the General Medical Association of France (*Association Generale des Medicines France*) in 1897, the Medical Chambers of Austria-Hungary in 1981, Poland in 1893, and the Czech Republic in 1894.

Accordingly, the Vienna Medical Chamber issued the "Regulations of the Medical Profession" in 1896. Serbian doctors educated in European cities, upon returning from their studies, brought modern understandings of medicine and adopted the three basic postulates in the work of these newly formed medical organizations:

1. regulating relations between doctors (collegiality, honor, and dignity of the medical profession, protecting common interests),
2. regulating relations between doctors and patients (caring for the patient's well-being, the right to charge appropriate fees, the right to refuse to treat a patient except in emergencies, the obligation to maintain medical confidentiality),
3. regulating the external position of doctors (unworthy advertising and promotion practices, quackery, and charlatanism).

All of the above influenced the creation of a new medical organization in Serbia, on whose initiative the Law on the Medical Chamber of the Kingdom of Serbia was passed in 1901.

On that occasion, it was stated that all doctors with the right to medical practice have the right to form a medical chamber, which is the legitimate representative of the medical profession. Its task is to discuss issues concerning both the medical profession and the interests of medical work, as well as the interests of public health. From then on, all members of the chamber were obliged to pay a monetary contribution, and the governing board acted as the chamber's court of honor.

In that period (1912), Serbia already had a significant number of doctors: 370 doctors, of whom 15 were women, as well as 112 pharmacists.

In 1923, in the Kingdom of Serbs, Croats, and Slovenes, 4 Medical Chambers were formed with headquarters in Belgrade, Sarajevo, Zagreb, and Ljubljana. In Zagreb in 1924, the program of "uniform work and unanimity in defending the most important professional interests" was adopted. Since then, a unified chamber directory was formed, in which 1200 doctors were registered. Two years later, the work was done on:

1. social insurance for doctors,
2. establishment of a support fund for chamber members who fell into difficult financial situations due to age or illness,
3. minimum prices for medical services
4. the issue of foreign doctors' work
5. the issue of medical internships lasting one year after obtaining a diploma from the Faculty of Medicine.

With the enactment of the Law on Doctors in 1931, the Medical Chamber gained the legal right to enforce the decisions of the Disciplinary Council, as well as to enact and control regulations on the fee-based work of doctors, to prevent the accumulation of fee-based work by fewer doctors. From 1938, medical identification cards were issued to all chamber members, and payment for volunteer work by doctors during specialization was introduced.

The work of the Medical Chamber was interrupted at the beginning of World War II, but after its end it was not restored, as the authorities of the time did not allow the organization of non-party and controlled unions and organizations.

During the social upheavals in Serbia in the 1990s, on the initiative of numerous medical activists in civic associations and health organizations, the Union of Doctors and Pharmacists of Serbia was formed in 1992. The basic idea was union organization to protect the medical profession. Accordingly, four basic postulates of union activity were proclaimed:

1. protection of the social, material, and professional interests of the membership,
2. protection of labor relations rights,
3. improvement of the living and working conditions of the membership,
4. negotiation with relevant state bodies and employers on the drafting of collective agreements.

On the initiative of doctors and with the help of the Serbian Medical Society, the Medical Chamber of Serbia was reactivated with the first elections in 2006. The chamber completed its doctor directory in 2009, and since then, it has been issuing licenses.

With the reactivation of the Medical Chamber of Serbia, work began on the activities that the chamber had engaged in during the previous period, with the working conditions, problems, and restrictions imposed by the authorities not changing much compared to previous historical times. Currently, 36,936 licensed doctors are registered in the chamber, of whom 23,521 are specialists. An acute problem in Serbian medicine is the age of doctors, namely the average age of specialist doctors is 58 years. We are trying to remedy this problem in cooperation with the Ministry of Health of the Government of the Republic of Serbia by continuously employing young doctors.

Regardless of our engagement, we believe that there will be certain stagnation and problems in the operation of the health system by the end of the 2020s due to a lack of adequate medical staff.

Overall, in the Republic of Serbia, with a long historical tradition, three basic medical organizations exist: the Serbian Medical Society (*Srpsko Lekarsko Društvo - SLD*), the Union of Doctors and Pharmacists of Serbia (*Sindikat Lekara i Farmaceuta Srbije - SLFS*), and the Medical Chamber of Serbia (*Lekarska Komora Srbije - LKS*). These medical organizations all work to protect and improve Serbian medicine in accordance with their statutes and regulations.

With their mutually coordinated and clearly defined activities, they enable a continuous endeavor for: improving the status of doctors in society, continuous education of doctors, and participation in decision-making in the areas of health service organization, social and health insurance, and the interests of public health.

HEALTH SYSTEM IN BOSNIA AND HERZEGOVINA

HIDAJET RAHIMIC

JZU Health Center Živinice, Tuzla Canton; Federation of Bosnia and Herzegovina, Bosnia and Herzegovina

Summary:

According to the Constitutional decisions, the field of healthcare in BiH is under the jurisdiction of the entity (Republika Srpska), the divided jurisdiction of the entity and the canton (Federation of BiH), that is, under the jurisdiction of the Brčko District of BiH. Thus, the Law on Health Care and three Laws on Health Insurance are currently in force in BiH. The provisions of these regulations are generally harmonized, although there are parts that differ significantly.

In the Federation of BiH, there is currently the Federal Ministry of Health and 10 cantonal ministries of health, as well as the Health Insurance and Reinsurance Institute of the Federation of BiH and 10 cantonal health insurance institutes. Republika Srpska has a Ministry of Health and Social Protection and a Health Insurance Fund, and in the Brčko District of BiH there is a Department of Health and other services under the Government of the Brčko District of BiH and a Health Insurance Fund of the Brčko District of BiH.

At the entity level, agencies for accreditation in health care were formed, namely the Agency for Quality and Accreditation in Health Care in the Federation of BiH and the Agency for Certification, Accreditation and Improvement of the Quality of Health Care in the Republic of Srpska. Of the authorities at the BiH level, it is significant to single out only the Department of Health at the Ministry of Civil Affairs, and of the regulations that apply throughout BiH, the most significant is the Law on Medicines and Medical Devices.

The obvious fragmentation of the system on the one hand, and the diversity of legal and by-law regulations in certain parts of the country on the other hand, significantly contributes to the different treatment of patients, i.e. the situation in which residents in one part of BiH have fewer or greater rights in the field of health insurance, easier or more difficult access to health services, and better or worse quality.

In 2021, the number of medical doctors employed in the health institutions of the Federation of Bosnia and Herzegovina is 5,279, that is, 243 per 100,000 inhabitants, which represents a significant deviation compared to countries in the region. The largest concentration of medical doctors is in the Canton of Sarajevo and Canton of Tuzla, where large clinical centers are located. Canton Sarajevo also has the highest number of medical doctors - specialists per 100,000 inhabitants, with a rate of 255/100,000. Specialist staff make up 63.7% of the total number of medical doctors. In the health institutions of the Federation of Bosnia and Herzegovina, the number of employed dentists is 587, which is 27 per 100,000 inhabitants. The largest number of inhabitants per dentist is registered in Una-Sana (7,340) and Zenica-Doboj cantons (6,813). 39.9% of specialist staff in dentistry. The number of masters of pharmacy employed in health institutions is 432, which is 19.9 per 100,000 inhabitants. The largest number of inhabitants per Master of Pharmacy is registered in Central Bosnia (15,443) and Una-Sana cantons (13.212). Specialist staff in the pharmaceutical industry make up 39.9%. The number of masters of pharmacy employed in health institutions is 432, which is 19.9 per 100,000 inhabitants. The largest number of inhabitants per Master of Pharmacy was registered in Central Bosnia (15,443) and Una-Sana cantons (13,212). Specialist staff in the pharmaceutical industry make up 15.2%.

Healthcare activities are performed at the primary, secondary and tertiary levels of healthcare and at the level of federal and cantonal healthcare institutes. A special form of protection of the health of the population is realized by the organization of public health. In 2021, in the territory of the Federation of Bosnia and Herzegovina, population health care was provided in 126 registered public health institutions, of which 63% were in health centers, i.e. in 80 health centers. Most health centers are registered in the Tuzla Canton - 13 of them, while there are 12 health centers in the Zenica-Doboj Canton. There are 3 health centers each in the Posavina and Bosnia and Herzegovina cantons. Of all public institutions that provide health care to the population, 24 or 18.9% are hospitals. Among these hospitals there are 6 cantonal and 9 general hospitals, 3 clinical centers, 3 special hospitals and 3 sanatoriums. In the Federation of Bosnia and Herzegovina, there are 3 clinical centers located in the Sarajevo, Tuzla and Herzegovina Cantons. The largest number of hospitals is registered in Central Bosnia Canton. Of the 6 registered, 4 are general hospitals, two are special hospitals called "JU Hospital for Pulmonary Diseases and TB" in Travnik, as well as one rehabilitation center/sanatorium called "Reumal Hospital Fojnica". The only canton in the Federation of Bosnia and Herzegovina that does not have a hospital is the Western Herzegovina Canton. 11 institutes for the protection of the health of the population are registered in the territory of the Federation of Bosnia and Herzegovina. The largest number of institutes is located in Sarajevo Canton, including the Institute for Emergency Medical Assistance. In other cantons, the service for emergency medical assistance is organized within health centers. The total number of public health institutes is 11, of which 10 are cantonal institutes of public health and the Institute of Public Health of the Federation of Bosnia and Herzegovina.

The number of private health institutions in the Federation of Bosnia and Herzegovina is constantly increasing, so that in 2014 the total number of registered private health institutions in the Federation of Bosnia and Herzegovina was 1,087, and in 2022 it was 1,393, which is an increase of 306 or 28% - stated the Institute of Health Insurance and Reinsurance of the Federation of Bosnia and Herzegovina.

In the Republika Srpska, there are 54 health centers that, together with family medicine clinics, provide access to primary health care for the population of the Republika Srpska. In the Republic of Srpska, the public sector includes: one clinical center, 11 hospitals, 4 special hospitals, 54 health centers, together with family medicine clinics. 7 institutes and institutes.

A special form of public health protection in the Republic of Srpska is provided by the public health organization, which includes: the scientific field of preventive medicine, including hygiene, epidemiology, microbiology, social medicine, health ecology, health statistics, health promotion, disease prevention.

In the Republic of Srpska in 2022, 377 private health care institutions were registered.

In the public health care of Republika Srpska, in six years, the number of health workers did not decrease, but increased, from 9,277 to 9,546, and in private 2,385 in 2018.

The data from 2022 is as follows: The number of doctors of medicine employed in public health institutions is 2836, of which 296 are doctors of general medicine, 1849 are specialists and 691 are on specialization, and there are 253 dentists and 112 pharmacists.

The field of health insurance in the Brčko District of BiH is regulated by the provisions of the Law on Health Insurance of the Brčko District. A significant reform in this area in the Brčko District of BiH began at the beginning of 2007, when the Assembly of the Brčko District of BiH adopted the

Decision on the establishment of the Health Insurance Fund of the Brčko District. The fund took over the tasks of implementing the policy of development and improvement of health care provided by health insurance, planning and collecting funds for all forms of health insurance that finance health services, and performing tasks related to exercising the rights of insured persons. All these tasks, before the establishment of the Fund, were carried out by the Department of Health under the Government of Brčko District of BiH. We do not have accurate data on the number of employed medical doctors and specialists in Brčko District, they are partly registered in the Medical Chamber of Tuzla Canton, and partly in the Medical Chamber of Republika Srpska. The primary and secondary level of health care is carried out in the Health Center in Brčko
In 2010, the Government of the Federation of Bosnia and Herzegovina established the Draft Law on Public-Private Partnership and referred it to the parliamentary procedure in the regular procedure, and it was also concluded that a public debate should be held on the draft law. This law will regulate the subject, principles, method, conditions and competences through which a public-private partnership between a public body and a private partner will be realized, as well as the procedures for proposing, approving and implementing projects, all with the aim of establishing and developing a transparent legal framework for determining the conditions under which domestic and foreign legal entities and individuals can invest in the construction or renovation of public infrastructure, including healthcare, which would ensure the conditions for the public partner to provide public services.
In the Republic of Srpska and the Brčko District of BiH, the Law on Public-Private Partnership of the Republic of Srpska and the Law on Public-Private Partnership of the Brčko District of BiH have been in force for some time. In the Brčko District of Bosnia and Herzegovina, the implementation of a project in the field of healthcare is currently underway in accordance with the provisions of this law and it is related to hemodialysis services. What makes this model the most acceptable is the fact that a public-private partnership does not imply a change of ownership, because the private partner builds, maintains and manages a project with its own funds, and collects revenues, and finally returns it to the public partner. The previously mentioned concession contracts can also be considered a form of public-private partnership.
Bosnia and Herzegovina offers certain health services that are recognized at the international level, although they are not necessarily rare in the global context. The fields of aesthetic surgery, dental medicine and spa tourism are particularly noteworthy.

Aesthetic surgery and dental services: The country has become an attractive destination for medical tourism thanks to quality services and competitive prices. According to research from 2020, the popularity of cosmetic surgery in Bosnia and Herzegovina is on the rise, and a significant number of patients come from abroad, including Bosnia and Herzegovina. diaspora, due to more favorable prices and high quality of services. For example, botox application in Switzerland costs about 1,550 euros, while in BiH the price is about 250 euros.
Spas and rehabilitation centers: BiH is rich in thermal springs and medicinal spas that provide treatments for rheumatic, neurological and post-traumatic diseases. These centers attract both domestic and foreign visitors who are looking for quality rehabilitation services at affordable prices.

Although these services are not unique in the world, the combination of high quality, professional staff and affordable prices makes Bosnia and Herzegovina an attractive destination for patients from different countries.

There are 13% of uninsured persons in FBiH, certain cantons, with certain decisions of their Ministries of Health, covered part of the costs for uninsured persons, and in the Parliamentary procedure of the FBiH Parliament, the draft law on the principle of "Health for all", which is actually already incorporated into the principles and principles of the Law on Health Care, should be adequately included in the Law on Health Insurance. With the understanding that comprehensive reform in this area takes time, the first step is to eliminate discrimination.

On May 20, 2023, the Government of the Republic of Srpska lifted the state of emergency due to the Covid-19 Pandemic, which left uninsured citizens without free health care. The Republika Srpska Health Insurance Fund has financed health services for uninsured citizens since the beginning of the corona virus pandemic.

The Health Insurance Fund invites uninsured citizens to come to the nearest office and find out about the possibilities of acquiring the right to health care. Persons whose income per member of a joint household does not exceed the lowest salary in the Republic of Srpska also have the right to free health care. They are treated as persons without income. In addition to persons with no income, pregnant women and women giving birth who do not have a job, if they have no other reason, can be registered for health care through their partner based on their condition. Persons over the age of 65, if they have no other reason, can be registered based on their age; suffering from malignant diseases.

Keywords: healthcare in BiH, medical doctors in BiH, health institutions in BiH, uninsured persons in BiH

HEALTH CARE SYSTEM IN MONTENEGRO

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President of the Montenegrin Medical Chamber

1 & 2) Number of medical doctors

- 623 633 inhabitants
- 2741 doctors
- General practitioners: 782
- Specialists: 1959

3) Medical and scientific institutions

Divided in three levels:

- Primary
- Secondary
- Tertiary

1. Primary level:

Primary Care Centre (GP, paediatrics and gynaecology services)
Institute for Emergency Medical Services

2. Secondary level:

7 general hospitals
One specialized hospital for Orthopedics, Neurosurgery and Neurology

3. Tertiary level:

- Clinical Center of Montenegro
- Blood Transfusion Institute of Montenegro
- Hospital for pulmonary diseases "Dr Jovan Bulajić"
- Psychiatric Hospital Kotor
- Institute for physical medicine, rehabilitation and rheumatology "Dr Simo Milošević", Igalo
- Institute for Public Health

Clinical Centre of Montenegro provides two levels of health care:

- Secondary – to citizens of three municipalities including capital Podgorica and two smaller neighbouring towns
- Tertiary – to citizens of the entire Montenegro.
- It is also a Scientific and teaching base for undergraduate and postgraduate academic education.

University of Montenegro's: Faculty of Medicine, Faculty of Dentistry and Faculty of Pharmacy; teaching base for nurses of all profiles.
Coverage of Uninsured Populations with Healthcare Services
Access to Healthcare

Access to healthcare is a fundamental principle of health systems aimed at providing universal coverage for the population. This means that even individuals who are not formally insured through the public health system can still receive healthcare services, particularly in emergency situations.

Emergency Healthcare for the Uninsured

In cases requiring emergency medical assistance, all patients are admitted regardless of their insurance status. This includes any situations that pose a threat to life or may result in permanent health consequences. Such an approach ensures that no one is denied essential medical care during critical moments, in accordance with international health standards and human rights principles.

Co-Payments and Costs

For non-emergency medical services, uninsured individuals can access healthcare by paying a co-payment. It is important to highlight that the costs of co-payments are significantly lower than the full price of medical services. This model allows a broader population to receive necessary care without facing excessive financial burdens, thereby reducing barriers to accessing healthcare facilities, even for those without formal health insurance.

Universal Coverage in the Public Health System

In most cases, all citizens are insured within the public health system. This insurance can be linked to employment, social protection categories (such as pensioners, the unemployed, children, and students), or through special programs aimed at covering socially vulnerable groups. The goal of this system is to ensure broad coverage and minimize the number of individuals left without healthcare protection.

The private healthcare system remains a separate entity that has not been adequately integrated into the national healthcare system, meaning that insured individuals cannot choose the facility where they will receive treatment. In some areas, primarily in diagnostics, public-private partnership agreements exist.

Healthcare for Foreign Nationals and International Agreements

The issue of healthcare coverage for foreign nationals is addressed through several models:

- Foreigners with regulated residency: individuals with temporary or permanent residency status in a country are often required to join the health insurance system, which grants them access to healthcare services on the same terms as domestic insured persons.
- Bilateral social security agreements: many countries have agreements that allow insured individuals from one country to access healthcare services in another, usually involving reimbursement arrangements between health insurance funds.
- Tourists and temporary visitors: for this group, coverage is typically provided through travel insurance policies or direct payment for services, unless international agreements allow for free or subsidized healthcare.
- Individuals without legal status: in emergencies, all foreign nationals have the right to medical assistance. However, the issue of costs is addressed according to national regulations and international conventions.

Conclusion: although uninsured individuals do not have the same access to all healthcare services as insured persons, the existing legal framework and healthcare policies ensure basic protection in emergencies, along with the option for co-payment for other medical services. Additionally, international agreements and global practices enable foreign nationals to access healthcare

services under specific circumstances, ensuring their safety and the protection of their right to healthcare.

5. Rare or unique medical procedures and techniques performed in your country

In recent years, our country has significantly advanced interventional radiology procedures and laparoscopic surgery methods, leading to improved treatment success rates and shorter patient recovery periods.

Additionally, bone marrow transplantation procedures have been initiated, marking a significant step forward in the treatment of hematological diseases and rare medical conditions.

In May 2022, at the Institute for Childhood Diseases, in collaboration with specialists from Great Ormond Street Hospital in London, the first-ever bladder augmentation surgery was performed at Clinical Center of Montenegro. This procedure, which involves enlarging the bladder using a segment of the small intestine, was successfully carried out on two patients, marking a significant achievement for our healthcare system. Notably, for the first time, we also treated a patient referred from a neighboring country by a renowned regional specialist.

Thanks to the reputation of prof. Mushtaq and his numerous successful complex surgeries worldwide, colleagues from the region have expressed interest in attending future surgical sessions.

HEALTHCARE SYSTEM AND MEDICAL EDUCATION IN TURKEY

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The healthcare system and medical education in Turkey have a deep-rooted history and a continuously evolving structure. Geographically positioned between Europe and Asia, Turkey has made significant strides in healthcare services and medical education. This summary evaluates the main features of Turkey's healthcare system and medical education, highlighting their current structure and challenges.

Healthcare System in Turkey

Turkey's healthcare system operates under the coordination of the Ministry of Health, with the collaboration of public and private sectors. The "Health Transformation Program" (HTP), initiated in 2003, has improved access to healthcare services, strengthened infrastructure, and expanded health coverage. Through the General Health Insurance (GHI) system, a large portion of the population benefits from healthcare services. Primary care is provided through the family medicine system, while secondary and tertiary care services are delivered by state hospitals, training and research hospitals, and university hospitals.

The outcomes of the Health Transformation Program include easier access to healthcare, reduced maternal and infant mortality rates, increased life expectancy, and improved patient satisfaction. However, challenges such as increased workload for healthcare personnel, difficulties in accessing services in rural areas, and the sustainability of healthcare financing persist.

Medical Education in Turkey

Medical education in Turkey is provided by state and private universities under the supervision of the Council of Higher Education (YÖK). Medical school education lasts six years and consists of three phases: basic sciences, clinical sciences, and an internship (clinical practice) year. Graduates receive the title of "general practitioner" and may pursue specialization through the Medical Specialty Examination (TUS).

In recent years, the number of medical faculties has increased, raising concerns about maintaining educational quality. To ensure standardization and support continuous professional development, various regulations have been implemented. Additionally, medical faculties are taking steps to enhance education quality and align with global standards through international accreditation processes.

Challenges and Future Perspectives

Turkey's healthcare system and medical education are undergoing continuous evolution to meet the population's healthcare needs. Key priorities include the efficient use of resources, addressing the uneven distribution of healthcare personnel, and improving educational quality. Furthermore, integrating digital health applications and artificial intelligence-supported diagnostic systems will play a crucial role in the future of healthcare delivery.

In conclusion, Turkey's healthcare system and medical education offer a robust infrastructure and broad access to services, yet require ongoing development and improvement. Sustainable policies and innovative approaches are vital to enhancing the quality of healthcare services and achieving excellence in medical education.

MEDICAL EDUCATION AND HEALTH SYSTEM IN GREECE

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Greece's medical education and healthcare system have undergone significant transformations, reflecting the nation's commitment to advancing medical training and improving healthcare delivery. The country boasts seven medical faculties affiliated with its universities, including prominent institutions such as the National and Kapodistrian University of Athens and the Aristotle University of Thessaloniki. These faculties play a pivotal role in educating future healthcare professionals and conducting medical research.

In terms of healthcare infrastructure, Greece operates a mixed system of public and private hospitals. The public system includes approximately 130 general and specialized hospitals, supplemented by 13 military and two university hospitals. Additionally, there are 139 private hospitals, primarily smaller clinics, offering services to those seeking alternatives to public healthcare.

The public healthcare system, known as the National Health System (ESY), provides universal coverage to all citizens. ESY services are delivered through a network of health centers, local health units, and hospital outpatient departments. Ambulatory care is accessible via ESY urban facilities, rural health centers, and hospital outpatient departments, where physicians can prescribe necessary medications, order tests, or refer patients to specialists. In rural and semi-urban areas, health centers staffed with general practitioners and various specialists deliver comprehensive care.

The private sector plays a significant role in healthcare provision, primarily financed through the National Organization for the Provision of Health Services (EOPYY), which contracts with private providers to meet the healthcare needs of its beneficiaries. This sector includes general and maternity hospitals, numerous private diagnostic centers, and specialists who may be contracted by EOPYY or paid directly by patients through out-of-pocket payments.

Greece has a high number of physicians relative to its population. In 2017, there were approximately 69,000 doctors, equating to 6.3 doctors per 1,000 inhabitants, nearly double the OECD average of 3.3. However, this abundance is offset by a shortage of general practitioners; the country had about 3,800 GPs, whereas 8,140 were needed to meet the EU average, highlighting an imbalance in medical specialization.

Recent reforms aim to address these challenges and enhance the efficiency of the healthcare system. In 2011, EOPYY was established as a self-governing public entity under the supervision of the Ministry of Health, functioning as the sole purchaser of health services and setting contractual conditions with providers. Efforts have been made to reform primary care by introducing Primary Health Care Networks (PEDY) in 2014, strengthening community health services through local health units and centers. Additionally, the implementation of a Diagnosis-Related Group (DRG) payment system aims to provide transparent and fair remuneration for hospital services.

The Greek government has also prioritized the digital transformation of healthcare services. Significant investments have been allocated to develop a comprehensive eHealth platform integrating patient records, telemedicine, and electronic prescriptions. This initiative aims to reduce paperwork, improve communication between healthcare providers, and enhance

patient access to health information. Telemedicine, in particular, has been a game-changer, especially for individuals in remote areas, allowing access to medical advice without the need for extensive travel.

Furthermore, the government is addressing healthcare workforce shortages by increasing salaries for healthcare workers, offering financial incentives for those willing to work in rural areas, and improving working conditions in public hospitals. Collaborations with medical schools and universities aim to increase the number of healthcare graduates and provide better training opportunities, ensuring that professionals are equipped with the latest knowledge and skills.

These comprehensive statistics and ongoing reforms provide an in-depth overview of Greece's medical education landscape and healthcare system, highlighting areas of strength and opportunities for further development.

HEALTHCARE SYSTEM IN THE REPUBLIC OF SRPSKA

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Summary: The objectives of the paper are focused on the presentation and analysis of the healthcare system in the Republika Srpska. The health policy bearers are healthcare workers and healthcare associates under the conditions and in the manner prescribed by law and regulations adopted on the basis of and in accordance with the Law on Healthcare of the Republika Srpska. The healthcare system of the Republika Srpska, as a complex and centralized system, provides healthcare on its territory at the primary, secondary and tertiary levels. The levels of healthcare are connected through a referral system or continuous and unhindered movement of citizens and patients through the healthcare system. There are 54 Health Centers in the Republika Srpska, which, together with family medicine clinics, provide access to primary healthcare for the population of the Republika Srpska. Family medicine is a pillar of the healthcare system in the Republika Srpska. 700 doctors work in family medicine teams. Of this number, only 340 are family medicine specialists, 290 are medical doctors, while the rest are specialists in other branches of medicine with additional education in family medicine or without additional education, which affects the quality of healthcare services. Due to a number of factors, young doctors are not interested in family medicine. The secondary level of health care is implemented through a network of 11 hospitals and 4 special hospitals and is organized in such a way as to complement primary health care and through organized and continuous assistance and support. The tertiary level of health care is provided through the University Clinical Center of the Republic of Srpska and 7 establishments and institutes. The Health Insurance Fund of the Republic of Srpska ensures the exercise of rights under mandatory health insurance, taking into account the principles of solidarity, reciprocity and equality of insured persons. By managing the funds of insured persons and cooperating with health institutions, the RS Health Insurance Fund creates conditions for the insured to have access to health services of the highest standards. During the COVID 19 pandemic, the RS Health Insurance Fund also financed health services for uninsured citizens, and after the pandemic, the Law on Mandatory Health Insurance provided numerous options for applying for health insurance in order to protect the most vulnerable categories of the population.
Keywords: health system, family medicine, Health Insurance Fund

THE ROLE OF HEALTH PROFESSIONALS IN HUMAN CAPITAL DEVELOPMENT, CRITICAL FOR BUILDING DEMOGRAPHICALLY RESILIENT SOCIETIES

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Several countries, especially in the eastern part of the European continent, are confronted with two major demographic challenges at the same time: people on average are having fewer children than what would be needed to keep populations stable, and many young people of reproductive age have been leaving their countries in search of better opportunities elsewhere.

Low birth rates are not unusual; in virtually all developed countries people are having few children, under two per family on average. However, only in parts of central, eastern and southeastern Europe have low birth rates been accompanied for decades by high levels of outmigration, mostly to economically stronger countries in the European Union. As a result, populations in the region have been shrinking, in some cases by 25 per cent or more since the early 1990s. Populations are also getting older, with the proportion of people 65 years or older sharply increasing.

The prospect of sustained population shrinking and ageing has caused alarm, as governments are concerned about the impact of demographic change on the future of economies and social support systems, as well as the sustainability of infrastructures and services, especially in areas – often rural – with decreasing population numbers.

Governments in the region have mostly responded to the demographic trends they are facing by trying to increase birth rates. This has been done primarily by increasing family support and providing financial incentives for having more children. Although this has led to small increases in birth rates in some countries, these changes have been temporary and have not led to a substantial increase in the number of children women have over their lifetime.

Attempts at increasing birth rates alone are unlikely to stop or reverse population decline; the singular focus on increasing birth rates may undermine human rights, including women's reproductive rights and gender equality.

Therefore, government efforts should be focused on supporting the population throughout their life course to reach their full potential, taking into account their individual needs, vulnerabilities and specifics. All sectors need to adapt to the demographic dynamics of modern societies – and the role of the health professionals in this regard is crucial.

HEALTH FINANCING AND EXPENDITURES IN BALKAN COUNTRIES: THE CASE OF NORTH MACEDONIA, SERBIA, BOSNIA AND HERZEGOVINA AND MONTENEGRO

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Introduction. The health financing model and health spending should meet the population health needs. The aim of this paper is to analyze and compare the financing of the health systems in the selected Balkan countries: North Macedonia, Serbia, Bosnia and Herzegovina and Montenegro.
Material and method. Data from World Health Organization HFA-DB and World Bank has been used as well as from Health in Action Reports for the selected countries. Desk review of official documents and websites of government and health institutions and the literature has been applied.
Results. All countries had a socialist system in Yugoslavia and the same health system. The system was reformed later in the transitional period. The Bismarck model of mandatory health insurance is dominant in all countries with recent reforms in Montenegro. Montenegro introduced major health insurance reforms, shifting from a contributions-based system to a fully tax-funded system. In North Macedonia Healthcare spending is relatively low compared to European Union (EU) and Southeastern European countries, current health expenditure as % of GDP is 8.5% in 2021. The health expenditures in 2021 in Bosnia and Herzegovina with 9.6% of GDP, in Serbia 10.01%, and in Montenegro 10.5% are at the level of the average of the European region and EU countries (10.95%). Out-of-pocket (OOP) payments of health spending in 2021 are high, in North Macedonia is accounted for 41.7%, in Montenegro 38.08%, in Serbia 35,86% and in Bosnia and Herzegovina 30.71%.
Conclusion. The financing of health systems in the Balkans has improved in the last decade following a series of transition reforms and socio-political challenges. However, inequalities in health systems between countries, as well as with EU countries, persist.
Keywords: Balkans, financing, health expenditures

Surgery

OPERIOPERATIVE GLYCEMIA REGULATION FOR INSULINOMA SURGERY – CHALLENGES FACED BY THE ANAESTHESIOLOGIST

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Insulinoma represents a benign, insulin-secreting neuroendocrine tumor of the beta cells of islets of Langerhans in the pancreas, which leads to frequent episodes of hypoglycemia. Surgery is considered to be the definite treatment, however, the perioperative treatment of patients with insulinoma is highly challenging.

In this case report we present the perioperative management of a 46-year-old obese male patient with insulinoma, who reported frequent severe hypoglycemia episodes with blood glucose levels as low as 1-2 mmol/L, therefore he has regularly consumed diazoxide. The main priority of the perioperative treatment was to prevent hypoglycemia before tumor resection and to control rebound hyperglycemia after tumor removal. Maintaining normoglycemia was challenging during the regular fasting period before abdominal surgery, as well as during the intervention, as general anesthesia masks the symptoms of hypoglycemia. Obesity further complicated the anaesthetic management, due to expected difficult airway management and central venous access. Glycemia was monitored in 15-minute intervals during surgery and in 30-minute intervals postoperatively. A continuous infusion of 10% glucose solution and boluses of 50% glucose solution were titrated, according to blood glucose levels and postoperative hyperglycemia was corrected by administering 5% glucose solution or 10% glucose solution, with boluses of human insulin, according to the trend of variations. However the clinical course was without any complications, the patient was longer admitted to the intensive care unit for strict glycemia regulation, transferred to the surgical ward on the fourth postoperative day and discharged from the hospital on the twentieth postoperative day.

As insulinoma is a rare phenomenon with unpredictable clinical course, current reportings regarding the anesthetic management of patients with this pathology are relatively lacking, therefore our case report could contribute to expanding the limited clinical data about the perioperative treatment of patients with this condition.

Keywords: insulinoma; glycemia; anaesthetic management; case report

CASE OF BILLATERAL SUPRACONDYLAR FEMORAL FRACTURE

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In fact, supracondylar femoral fracture it is not an uncommon injury. But a bilateral one is a rarity. This is mostly due to the high incidence of road traffic accidents, or after a fall from height. The injury is caused by a direct blow of the flexed knee. This case of double supracondylar fracture is however, a rarity and it is reported because it presents really certain special problem in operative and postoperative care and physical rehabilitation. We present a 59-year-old female, who suffered in a road traffic accident. She was transported to ER, hemodynamically stable, respiratory sufficient. She complained of bilateral pain in the distal femoral region. Deformity was present bilaterally. Arterial supply to both legs was normal and all the pulses were palpable in the usual positions. An X-ray examination revealed a supracondylar bilateral fracture. Both the fractures were at the distal femoral segment, one extra articular and one partial articular, according the A/O classification.

A Steinmann's pin was inserted through the tibial tuberosity and skeletal traction maintained with the limb placed a Braun's frame with the end of the bed. Then the patient was treated surgically. How much optimal time she will need for further rehabilitation and weight bearing?

Keywords: bilateral, supracondylar fracture, hemodynamically, skeletal traction, rehabilitation;

INCIDENTAL HEMATOPERITONEUM IN LAPAROSCOPIC APPENDECTOMY IN PREGNANT PATIENT

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Acute appendicitis is the most common non obstetric emergency in pregnant women and often associated with a late diagnosis and complications such as perforation and fetal loss. We present a case of a 25-year-old primigravida, with epigastric pain radiating to the lower right quadrant that appeared 12 hours before admission, nausea, vomiting, white tongue and foetor ex ore. The laboratory values: WBC 18.000, RBC 4.12, HCT 36.2, CRP 22. Ultrasound examination: fetal biometry corresponded to 7 gestational weeks, positive cardiac activity, a small amount of peritoneal fluid was present in the right paracolic, ileocecal region and in Douglas's space, thickening of the wall of appendix vermiformis, surrounding inflammation of fatty tissue. The patient was observed in the next 6 hours, pain persisted in the lower right quadrant with propagation to the left quadrant. An indication for laparoscopic intervention for acute appendicitis has been made. The patient was placed in the supine position with the first camera and extraction port supraumbilically (10 mm) and the second port (5 mm) suprapubically. On laparoscopic exploration, 200 ml of bloody content was found in the pelvis and the vermiform appendix with reactive changes in the middle part towards the apex. An infundibular paraovarian cyst with a diameter of 20 mm was present on the right fallopian tube. The right ovary was ruptured with bleeding on one side. A third port (5 mm) was placed left pararectally. Aspirated pelvic blood was sent in the laboratory for beta HCG determination and partial resection of the right ovary and appendectomy were performed. After lavage, a Redon drain was placed in the pelvis through the suprapubic port. Postoperative course was normal and the drain was removed on the second postoperative day. Gynecological ultrasound was performed on the third postoperative day, the findings were normal and patient was discharged home.

Keywords: hematoperitoneum, acute appendicitis, pregnancy, treatment

ADENOMATOID ODONTOGENIC TUMOR OF MAXILLA: A CASE REPORT

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Adenomatoid odontogenic tumor (AOT) is a rare, benign tumor (3–7% of all odontogenic tumors), with slow growth potential and exceptionally low recurrence rate. The tumor is predominantly found in females in the second decade of life, involving the maxilla more frequently than the mandible. The tumor presents in three variants—intrafollicular, extrafollicular, and peripheral which are classified based on the location of the lesion. We report a rare peripheral case of AOT in a 71 year old female patient in a posterior region of maxilla. All types of AOT show encapsulation and benign behavior. The treatment of choice is conservative surgical enucleation with a very low recurrence rate.
Keywords: Adenomatoid odontogenic tumor, benign, maxilla, treatment

RIGHT COLECTOMY IN CARCINOID TUMOR OF APPENDIX VERMIFORMIS AND ADENOMA TUBULARE COLON ASCENDENS

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Introduction

Carcinoid tumors of the appendix, regardless of type, are typically asymptomatic. The most common presentation is as an incidental finding in appendices removed for acute appendicitis. Carcinoid syndrome is a very rare presentation and is usually associated with metastatic disease. A type of neuroendocrine tumor, carcinoid tumors are the most common malignancy of the appendix. They account for approximately half of all appendix cancers and occur more often in women than in men. When detected early, carcinoid tumors of the appendix are often highly treatable.

Case Presentation: A 60-year-old patient, asymptomatic, underwent a routine colonoscopy. A small, shallow diverticulum and a polypoid lesion were observed in the ascending colon, along with a nodular lesion approximately 1 cm in size at the ostium of the vermiform appendix. A contrast-enhanced CT scan of the abdomen was performed, revealing changes in the wall of the ascending colon over a length of 6 cm and at the base of the vermiform appendix, measuring 1 cm.

One year prior, a colonoscopy with polypectomy was performed for a 22 mm tubular adenoma in the descending colon. An indication for surgery was established. A laparoscopic right hemicolectomy was performed with ileocolonic transverse side-to-side anastomosis, along with a complete colonic excision (CCE). The operative and postoperative course was uneventful. The patient was discharged on the 6th postoperative day.

Histopathological findings confirmed a carcinoid tumor of the vermiform appendix (pTNM = pT4 pN0 pM0 G1 NG1 Stage III) and a tubular adenoma of the colon. The oncology follow-up included tumor marker evaluation, chromogranin A, and 5-HIAA levels, with results remaining normal over two years.

Conclusion:

According to current guidelines, an appendectomy is appropriate for small carcinoid tumors (<1 cm). Indications for more extensive surgery than appendectomy include tumor size >2 cm, lymphatic invasion, lymph node involvement, extension to the mesoappendix, tumor-positive resection margins, and cellular pleomorphism with a high mitotic index.

Keywords: carcinoid tumor, adenoma tubulare, right colectomy

REVOLUTIONIZING TENDON HEALING: COMPLETE RECOVERY FROM CHRONIC ACHILLES TENDON RUPTURE (CATR) WITH SURGICAL REPAIR AND PLATELET RICH PLASMA (PRP) ADJUVANT THERAPY

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Introduction: A chronic Achilles tendon rupture (CATR) is defined as an inadequately treated Achilles tendon rupture within 4 to 6 weeks of the injury, leading to incomplete or abnormal healing.

Case description: A 59-year-old male patient presents with persistent pain around the right ankle and limping. 6 weeks prior, he suffered from rupture of the right Achilles tendon which was treated conservatively. The patient has a visible step-like deformity on the dorsal distal third of the lower right leg, is unable to bear weight on his right leg nor stand on his toes or push-off the ground with positive Thompson's and Matles' tests. A clinical diagnosis of CATR was made. A decision for surgical treatment of the ruptured tendon was based upon the patient's good condition and moderate physical activity level. Using the posterior approach, a V-Y tendon plasty combined with Bunnell tendon repair technique were performed to treat the CATR. The patient's right lower leg was immobilized for 6 weeks in a plaster of Paris with the foot in 30° plantar flexion. After removing the splint, the patient was advised to start with physical therapy. 2 months after the surgery, the patient had improved range of motion in the right ankle joint lacking 10° of plantar flexion, slight pain and discomfort. A mutual decision for platelet rich plasma (PRP) adjuvant therapy was agreed upon. In the following three weeks, the patient received three peritendinous PRP injections under ultrasonographic guidance and went through another cycle of physical therapy. 2 months after the PRP treatment and physical therapy, the patient was pain free, had full range of motion in the right ankle joint and complete triceps surae muscle force.

Discussion: Most CATRs require surgical management while non-operative treatment is reserved for patients with poor prognostic profile. PRP application aims to reduce pain and promote functional regeneration.

Key words: tendon healing, chronic Achilles tendon rupture, surgical repair, PRP therapy, V-Y tendon plasty, Bunnell tendon repair technique

BALANCING TWO LIVES: MANAGEMENT OF A GRADE IV ASTROCYTOMA IN A 24-YEAR-OLD PREGNANT PATIENT

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Introduction

Grade IV astrocytomas are highly aggressive tumors that present significant challenges for diagnosis and treatment. In pregnant women, balancing the radicality of the treatment versus the safety of both the mother and fetus makes the management even more complicated.

Case description

A 24-year-old woman presented with persistent nausea, dizziness, double vision, headaches, and evident cerebellar ataxia. At the time, she was 18 weeks pregnant. MRI of the brain was done, revealing a posterior fossa tumor with 43 x 23 mm cystic and 22 x 12 mm solid component, consistent with pilocytic astrocytoma. The tumor was compressing the mesencephalon, pons, and inferior colliculi, leading to anterior displacement of the fourth ventricle and obstructive hydrocephalus.

After a thorough discussion with a multidisciplinary team, a decision was made to proceed with surgical treatment.

The surgery was performed in two stages under general anesthesia with continuous monitoring of both the mother and fetus. Firstly, in supine position, a ventriculoperitoneal shunt was placed to alleviate the hydrocephalus. Secondly, in prone position with special precautions for fetal safety, trepanation of the posterior cranial fossa was performed, followed by tumor extirpation using microsurgical fluorescein-guided resection.

Postoperatively, the patient was transferred to the ICU, where fetal viability was immediately confirmed via transabdominal ultrasonography. She recovered steadily, with gradual improvement of her neurological symptoms and was discharged after 10 days. Biopsy results confirmed a grade IV astrocytoma.

Given the histopathological diagnosis, an early C-section was performed 4 months later, delivering a healthy baby. The mother was recovering well, in good overall condition, so she was referred for further oncological treatment.

Discussion

Management of brain tumors in pregnancy requires a highly precise and collaborative approach. In our case, the fluorescein-guided resection, careful positioning, and maternal-fetal monitoring were crucial for achieving optimal outcome, highlighting the importance of multidisciplinary approach.

Key words: grade IV astrocytoma, brain tumor, pregnancy, fluorescein-guided resection, microsurgery, brain surgery in pregnancy

GIANT LEFT HEPATIC CYST WITH GASTRIC OUTLET OBSTRUCTION

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The prevalence of cystic hepatic lesions in the United States is estimated to be 15%-18% and simple hepatic cyst is the most common, found in 2.5%-18% of the population. Gastric outlet obstruction (GOO) is a medical condition where there is an obstruction at the level of the pylorus, which is the outlet of the stomach. Individuals with GOO will often have recurrent vomiting of food that has accumulated in the stomach, but cannot pass into the small intestine due to the obstruction.

A 74-year-old patient was admitted to the emergency department due to diffuse abdominal pain, bloating and tenderness in the upper abdomen. In the last month, he had malaise, bloating (especially after a large meal), loss of appetite, regurgitation and a metallic taste in the mouth. Laboratory tests (WBC 12.000, CRP 10) and a CT scan of the abdomen with contrast were performed. We detected a multiple cystic formations on the right liver lobe and larger one on the left liver lobe that compresses the antro-pyloric part of the stomach and D-1 of the duodenum. We performed gastric emptying with a nasogastric tube, serological tests to exclude possible echinococcosis and tumor markers to exclude possible malignancy. Then, we performed a diagnostic gastroscopy and the findings were normal. An indication for laparoscopic intervention has been made and laparoscopic evacuation and excision-reduction of the simplex cyst was performed. The histopathological analysis revealed a simplex cyst. The patient had a normal post-operative course and was discharged home on the third postoperative day. At the examinations after 1 and 3 months, the findings were normal.

Large cysts within the liver parenchyma are in contact with the vascular, biliary and digestive systems. The resulting compression may lead to inferior vena cava obstruction, Budd Chiari syndrome, obstructive jaundice, portal hypertension and Gastric Outlet Obstruction.

Keywords: hepatic cyst, gastric obstruction, surgery, laparoscopy

DYSPLASTIC CHANGES OF PAPILLOMA OF THE MUCOUS GINGIVA IN MAXILLA: A CASE REPORT

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A papilloma is defined as a solid benign tumor of the epithelium with a clear-cut border that projects above the surrounding tissue. Papilloma appear in stratified squamous epithelium in oral cavity. Clinical appearance of most benign lesions of the gingiva looks the same, usually presenting as non-ulcerated mass on the gum. Oral squamous papilloma though benign in nature, has a higher neoplastic potential compared to other papillomas. We present a case report of papilloma of gingival mucosa in maxillary edentulous region in a 54 years old female patient with dysplastic changes. Biopsy is still considered a gold standard for gingival lesion diagnosis because there are varieties of manifestations on the gingiva which cannot be diagnosed on clinical ground. Early detection of premalignant and malignant lesions of gingiva can tremendously reduce the morbidity and mortality for the patient.

Keywords: papilloma, gingiva, maxilla, biopsy

OVERCOMING THE INVASIVE THREAT OF KLEBSIELLA PNEUMONIAE NDM+ IN CARDIAC SURGERY—A CASE REPORT OF LIMITED TREATMENT OPTIONS

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In this case report, we present the harrowing tale of a 64-year-old female post-cardiac surgery patient who developed a life-threatening infection caused by Klebsiella pneumoniae NDM+—an antibiotic-resistant strain notorious for its invasive behavior and lack of effective treatment options. Despite the use of off-label, high-dose combination therapy with tigecycline, meropenem, and imipenem, and monitoring infection markers, the patient's ultimate death from cardiac complications underscores the grim reality of managing such infections in resource-limited settings. This case exposes the urgency of addressing MDR pathogens and highlights the critical need for broader access to alternative therapies, as countries like ours are left with few tools to fight back against these invisible killers.

Keywords: Klebsiella pneumoniae NDM+, Multidrug resistance (MDR), Cardiac surgery infection

RECONSTRUCTION OF MANDIBULAR DEFECT WITHOUT A MICROVASCULAR FREE FLAP AFTER SEGMENTAL MANDIBULECTOMY IN A PATIENT WITH MEDICATION-RELATED OSTEONECROSIS OF THE JAW

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Medication-related osteonecrosis of the jaw (MRONJ), as a result of an adverse drug reaction, could be more challenging for physicians because it can result in progressive bone destruction in the maxillofacial region. There is an increased risk of occurrence, especially in patients with poor oral health conditions. Therefore, we strongly recommend that high-risk patients should receive a dental review or dental extraction prior to therapy initiation and this is published in guidance papers. The treatment options for MRONJ depend on the staging system published in the position paper by the American Association of Oral and Maxillofacial Surgeons. The aim of this case report was to present the functional rehabilitation and reconstruction without graft material. A 68-year-old female visited our clinic in 2023 with a chief complaint of discomfort in the right submandibular area due to intraoral necrotic bone exposures, associated with submandibular swelling, extraoral pus discharge, limited mouth opening, and pain. She had undergone a mastectomy a few years ago for breast cancer and, at the time of her visit, she was only receiving drugs to help protect her bones due to multiple bone metastases. She was diagnosed with stage 3 MRONJ and had no other identifiable cause of necrosis on the contralateral side of the mandible or maxillary bones. Preoperative 3D CBCT scans showed massive destruction and an osteolytic lesion with periosteal reaction. After multiple conservative treatments with systemic antibiotics, and due to the risk of pathological fracture, we decided on radical segmental resection of the necrotic bone area of the mandible and immediate reconstruction of the surgical defect with load-bearing titanium plate fixation via transcervical neck approach. During the follow-up period, the patient showed satisfactory and functional recovery, and there were no complications, or exposure of the hardware which was observed clinically and on the X-ray.
Keywords: Osteonecrosis, Segmental mandibulectomy; Plate reconstruction

ZYGOMATIC-BONE COMPLEX FRACTURE WITH OCULAR INJURY: SURGICAL MANAGEMENT AND CLINICAL OUTCOME

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Maxillofacial trauma has a multifactorial etiology and can be associated with several aesthetic disfigurements, functional complications, and psychological stress. Fractures of the facial skeleton can occur with or without other traumas along the body, especially cranial bones. Zygomatic bone fractures are among the most common fractures of the face. Repair and reconstruction of the prominence of the malar bone can be challenging due to the anatomical location, clinical defect, and sensitivity of the surrounding structures. The objective was to report a restoration with internal fixation of a zygoma fracture in an elderly patient with ocular injury. A 78-year-old patient came to our clinic with a computed tomography analysis, which diagnosed a zygoma fracture with a suspected ruptured globe as the result of a fall (approximately 1.7 meters). Clinical examination of the eye revealed suspected loss of visual acuity in the left eye. Laceration, loss of visual acuity, subconjunctival hemorrhage, flattening of the malar eminence, and orbital dystopia were the most common clinical signs and symptoms. A CT scan showed an isolated and displaced complex fracture of the left zygoma. We collaborated with an ophthalmologist, and immediate treatment was provided by them, but unfortunately, the patient lost vision in the affected eye due to the severity of the injury. The patient showed no evidence of extraocular muscle entrapment on examination. Reconstruction of the left zygoma, as a secondary objective despite the blind eye, was performed using a subcilliary and lateral brow incision approach for open reduction and internal fixation, followed by a bone hook for reduction of the body of the zygoma, resulting in aesthetic and functional gain. A follow-up CT scan showed that the bones were correctly aligned. Recovery was uneventful, and wound healing was without complications, obtaining effective results. Multidisciplinary treatment and teamwork are mandatory for such patients.

Keywords: facial trauma; zygomatic fracture; rupture of the globe;

TRANSANAL EXCISION: A DIAGNOSTIC PROCEDURE THAT BECAME A DEFINITIVE TREATMENT FOR EARLY RECTAL CANCER

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Introduction: Transanal excision (TAE) is a rectum preserving procedure used in the management of early stage cancers located in the lower and mid third of the rectum. In cases where clinical and MRI findings suggest malignancy, and yet repeated biopsies show benign lesion, TAE could be both diagnostic and therapeutic procedure.

Case Report: We present three cases of patients who presented with symptoms, including the presence of blood or mucus in the stool and difficult defecation. Clinical examination revealed tumor formations in the distal rectum, located no more than 4 cm from the anocutaneous line. Biopsy results were without any signs of malignancy. Due to the tumor characteristics, malignancy was suspected prompting pelvic MRI which confirmed the suspected malignancy, leading to the decision to perform transanal excision in all three patients. Histopathological examination of the excised specimens revealed early rectal adenocarcinoma with clear resection margins. During follow-up range from 18 to 30 months, no recurrence of disease or symptoms was observed.

Discussion: Various factors, including preoperative diagnostic findings, patient age, and comorbidities determine the decision to perform TAE. This procedure is the most beneficial for patients who are not candidates for more radical surgery, such as those with significant comorbid conditions or advanced age. Additionally, TAE can be performed for inconclusive histopathological diagnoses, serving both as a diagnostic and therapeutic procedure. While TAE is not suitable for all rectal cancers, it offers a valuable treatment option for early stage tumors with favorable outcomes, as demonstrated in this report.

Conclusion: The cases reported here highlight the success of TAE in achieving clear resection margins and favorable long-term outcomes for selected patients with early rectal cancer or benign lesions. Regular follow-up is essential to detect potential recurrences, and TAE remains a valuable alternative to more extensive surgical procedures in appropriately selected patients.

Keywords: Rectal cancer, Rectal polyp, Transanal excision

MALIGNANT TRANSFORMATION OF A PLEXIFORM NEUROFIBROMA OF THE FACE

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Introduction: Neurofibromatosis type 1 (NF1) is a rare autosomal dominant disorder characterized by the development of multiple neurofibromas, including orbital and periorbital plexiform neurofibromas (OPPNs), which occur in 10% to 22% of patients. OPPNs typically develop in early childhood and exhibit rapid growth, leading to functional, neurological, and aesthetic challenges, as well as a risk of malignant transformation.

Case Presentation: A 25-year-old male with NF1 presented with a large right-sided OPPN causing periorbital and malar deformities. Although previously operated on multiple times, the tumor recurred and grew rapidly. Despite its size and location, vision remained intact in the right eye. Preoperative MRI and CBCT revealed a large lobulated cystic tumor with central necrosis, suggesting malignant transformation.

The tumor was excised with preservation of the facial nerve branches, and eyelid reconstruction with lateral canthoplasty was performed. Histopathology confirmed a high-grade malignant peripheral nerve sheath tumor (MPNST) arising from the OPPN. The patient subsequently underwent chemotherapy and radiotherapy. Three years later, aesthetic reconstruction was performed in two stages, including a direct brow lift, upper blepharoplasty, reinsertion of the levator palpebrae superior muscle, lateral canthal lengthening, staged facial lipofilling, and ear suspension.

This case highlights the successful management of a malignant orbital plexiform neurofibroma in an NF1 patient. Despite the tumor's extent, malignant transformation, and significant facial deformity, staged surgeries resulted in favorable functional and aesthetic outcomes.
Keywords: Neurofibromatosis type 1 (NF1), Malignant peripheral nerve sheath tumor (MPNST), oculoplastic surgery

POSTINFARCTION VENTRICULAR SEPTAL DEFECT FOLLOWING MYOCARDIAL REVASCULARIZATION

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Introduction: Ventricular septal defect is a rare mechanical complication and occurs in 1-2% of patients, typically 3 to 5 days after acute myocardial infarction. It can occur as early as hours after infarction or as late as 6 weeks. Rupture of the interventricular septum resulting in ventricular septal defect usually occurs after occlusion of a coronary artery and a full-thickness infarction. Surgical correction of the septal defect should be performed as soon as possible in order to minimize subsequent end organ damage due to heart failure and hypoperfusion.
Case presentation: Our case is a 53-year old female presenting to our department with symptoms of acute myocardial infarction due to 99% stenosis of left anterior descending artery. Initial echocardiography revealed ejection fraction of 55% and proper function of the valvular apparatus. The patient underwent urgent coronary artery bypass grafting LIMA-LAD (left internal mammary (thoracic) artery to left anterior descending artery). She had uneventful post-operative course and was discharged on the 4th post-operative day with control echocardiography with normal findings. Approximately 7 days after discharge the patient presented to our department with symptoms of cardiogenic shock, the echocardiography revealed new ventricular septal defect which was not present on the previous echocardiography. The patient underwent emergent cardiac surgery operation, closure of the ventricular septal defect with xeno-pericardial patch. Afterwards the patient had orderly post-operative course and was discharged on the 7th post-operative day with normal heart function on the echocardiography. Furthermore, the follow-up of the patient is uneventful and she is in good and stable condition.
Keywords: Ventricular septal defect, Acute myocardial infarction, Myocardial revascularization

PRIMARY EPITHELIOID ANGIOSARCOMA OF THE VULVA: A RARE TUMOR IN AN UNUSUAL SITE

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Introduction: Angiosarcomas are rare and aggressive soft-tissue sarcomas originating from endothelial cells lining blood and lymphatic vessels. The etiology is often unclear, but known risk factors include prior radiotherapy and chronic lymphedema. Primary epithelioid angiosarcoma of the vulva is exceptionally rare, with limited cases reported in the literature.
Case Presentation: We present a case of a 44-year-old woman referred by a gynecologist for a rapidly enlarging vulvar mass. The patient, previously healthy and a mother of two, reported a mass on the right labia majora that had grown significantly over a short period. Clinical examination revealed a large tumor on the right labia majora, characterized by central ulceration of the skin, necrosis, and bleeding. Pelvic imaging demonstrated a mass infiltrating the vagina, rectus abdominis muscle, and surrounding tissues. Multiple fine-needle aspirations and core biopsies were inconclusive due to extensive tumor necrosis. Given the rapid tumor progression, associated inflammation, and chronic bleeding, the patient was not a candidate for incisional biopsy. She underwent radical tumor resection and right inguinal lymphadenectomy through a multidisciplinary approach. Reconstruction involved a keystone design perforator island flap (KDPIF) omega modification for the pubic region, a V-Y advancement flap for vulvar reconstruction, and direct vaginal repair. Histopathological analysis confirmed high-grade epithelioid angiosarcoma. Postoperative management included radiation therapy and chemotherapy. There was no evidence of local recurrence or metastasis at the one-year follow-up.
Conclusion: Epithelioid angiosarcoma of the vulva is an exceedingly rare malignancy, and precise incidence rates are not well-established. Radical surgical resection remains the cornerstone of therapy, with detailed histopathological analysis guiding adjunctive oncological treatments. Prognosis is generally poor; studies indicate that nearly half of the patients succumb within the first year of diagnosis, and the 5-year overall survival rate is less than 30%.

Keywords: Epithelioid angiosarcoma; Gynecologic malignancy; Keystone design perforator island flap;

COMPARTMENT SYNDROME OF THE UPPER LIMB FOLLOWING A SNAKEBITE FROM HORNED VIPER- VIPERA AMMODYTES

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Introduction: In North Macedonia, three venomous snake species are present: the horned viper (Vipera ammodytes), the common European adder (Vipera berus), and the meadow viper (Vipera ursinii). The clinical severity of envenomation symptoms is influenced by multiple factors, including the snake species, anatomical site of envenomation, delay in antivenom administration, and patient-specific comorbidities. Compartment syndrome is a rare but possible complication due to severe swelling and venom-induced tissue damage.

Case Presentation: A 71-year-old man presented with extensive swelling and ecchymosis of the right upper limb, along with signs of hand ischemia two days following a horned viper bite on his right forearm. Systemic symptoms included: hypotension, anuria, bradycardia, bradypnea, and somnolence. History revealed that at the time of the incident, the patient was under influence of alcohol and sought medical attention 6 hours afterward which resulted in delayed antivenom administration. The patient was transferred from the local hospital following a rapid worsening of local and systemic symptoms.

On admission, laboratory studies revealed hepatic and renal dysfunction hyperfibrinogenemia, and coagulopathy. Initial treatment included aggressive resuscitation, vasopressors, corticosteroids, antibiotics, diuretics, and symptomatic therapy. Due to a clinical diagnosis of compartment syndrome, emergency fasciotomies were performed to decompress all compartments of the upper limb. Subsequent management included intensive hydration, diuresis stimulation, staged wound care, and skin grafting with platelet-rich plasma (PRP). Distinguishing neurological symptoms of envenomation from those of alcohol withdrawal syndrome posed an additional challenge. The patient recovered and achieved full functional recovery of the upper limb.

Conclusion: This case highlights the importance of early recognition and aggressive management of snakebite-related compartment syndrome. Timely surgical intervention, combined with comprehensive resuscitation, is crucial for preserving limb function and preventing long-term complications.

Keywords: snakebite, compartment syndrome, fasciotomies

A RARE CASE OF EPITHELIAL HEPATOBLASTOMA IN TWO-MONTH-OLD MALE INFANT

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Introduction: Hepatoblastoma is the most common pediatric primary liver tumor and constitutes 90% of tumors in children aged 5 years or younger. Hepatoblastomas originate from primitive hepatic stem cells that give rise to the epithelial components of the liver. Classically, these tumors are divided into 2 broad categories: epithelial type (E-HB) and mixed epithelial and mesenchymal type (MEM-HB). Earlier detection by knowledgeable physician using better imaging methods towards adequate diagnose, means crucial, for better modalities and outcome for patient. Case presentation: We present a two-month-old male infant, which was admitted to our department via pediatrician, with chief medical complaints of macroglossia and left sided longitudinal hemi hypertrophy and facial dysmorphic stigmatic features. After the initial physical exam, clinical investigations were ordinated. Lab results showed elevated levels of lymphocytes, thrombocytes, RDW-SV and hyperglycemia as well. The levels of AFP were >1000.0 (0-28 kiU/L). CT scan showed two tumefacts located between 5th and 6-7th liver segments clearly demarcated with dimensions of 57 mm of the bigger one and 33 mm of the lesser lesion, the other intra-abdominal organs were intact. An urgent indication for surgical treatment was obtained and the child was prepared for operation. In General endotracheal anesthesia (GETA), Right-sided laparotomy was made and intraoperative findings were two large liver's masses located in the right lobe. Cholecystectomy and right partial hepatectomy were obtaind altogether, and the material was sent for histopathological verification (HP). Histopathology revealed epithelial hepatoblasotma, embryonic pattern. After procedure, the chemotherapy was given by standard protocol.

Conclusion: Most cases of hepatoblastoma are sporadic and occur in the liver without any background liver disease, but they are sometimes associated with constitutional genetic abnormalities, malformations, and familial cancer syndromes such as Beckwith-Wiedemann syndrome and familial adenomatous polyposis. Histologic subtype is associated with outcome, with pure fetal histology having the best prognosis.

Keywords: epithelial hepatoblastoma, embryonic pattern, male infant, management

THE SURPRISING STORIES OF THE ACUTE ABDOMEN: TORSION OF THE APPENDIX VERMIFORMIS,

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Acute appendicitis is the most common cause of acute abdominal pain needing surgical treatment. However, it can be clinically and radiologically mimicked by other conditions, some of them with an extremely rare occurrence.

A two year old boy presented to our hospital with a history of abdominal pain and vomiting in the last 48 hours. On physical examination, the patient was found to be dehydrated, with a dry mouth and a white-coated tongue. Tenderness was noted throughout the entire abdomen, with rigidity and guarding, especially in the right lower quadrant. Laboratory results showed an elevated C-reactive protein level of 50.2 mg/L and a white blood cell count of 25,800/μL. Under the suspicion of acute complicated appendicitis, emergency McBurney laparotomy was performed. Operative findings revealed an enlarged, dark purple, congested appendix, twisted 720° around its base at the cecum in the anticlockwise direction. There was no evidence of perforation. A typical appendectomy was performed. The postoperative course was uneventful and the patient was discharged home on the fourth post-operative day. Microscopic examination confirmed the hemorrhagic infarction and ischemic necrosis of the appendix, followed by an inflammatory reaction caused by the torsion.

To our knowledge only 22 cases of torsion of the vermiform appendix in children have been reported in literature, with our case being the 23rd. Though extremely rare, it should be considered as a potential diagnosis in patients presenting with right lower abdominal pain. Histopathology is crucial in differentiating primary from secondary causes of appendicular torsion.

Keywords: torsion, appendix vermiformis, child, acute abdomen.

CUTANOUS FORM OF BREAST ANGIOSARCOMA

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Introduction. Angiosarcomas are classified into cutaneous, visceral, and soft tissue subtypes. Angiosarcoma of the breast is one of the rarest malignancies as its incidence it's less than 0.4% with generally poor outcome. Breast angiosarcoma can be classified into primary when arising de novo and secondary to chronic lymphoedema or breast irradiation. Molecular pathways involved in angiosarcoma development have not been described clearly, yet some gene point mutations and protein altered expression levels have been detected. So far, their management is based above all on surgery.

Case presentation. We present a 70-year-old woman who had breast conserving surgery because of invasive breast carcinoma on her right breast 7 years ago upper-medial quadrantectomy with axillary lymph node dissection after which the patient received the standard oncological protocol according to her staging.

On initial inspection she had visible redness, haematoma and exulceration medially of the nipple, located in the lower-medial breast quadrant.

The patient underwent a bilateral simple mastectomy with bilateral drainage and was discharged from the hospital after 3 days when the drains were removed.

Discussion. This is a rare case that shows the full diagnostic and therapeutic approach to a patient with breast angiosarcoma, most likely cause by adjuvant breast radiation therapy.

Keywords: angiosarcoma, breast cancer, radiation therapy

HIGH - GRADE LARGE CELL NEUROENDOCIRINE CARCINOMA OF THE SUPRAGLOTTIS A CASE REPORT

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After SCCs, neuroendocrine tumors of the larynx (NTL) are the second most commonly diagnosed malignancies of the larynx. The WHO has classified NTL into the following types: typical carcinoid; atypical carcinoid; small cell carcinoma, neuroendocrine type; and paraganglioma.They can occur in any region of the larynx but the supraglottic is the most commonly reported site .

Case Report

We report a case of a 66-year-old male, presented to our department with a history of dysphagia A fiberoptic laryngoscopy was performed and showed a growth involving the laryngeal surface of epiglottis and left aeryepiglottic fold. There was no palpable mass in the patient's neck on first physical examination. The patient underwent a biopsy procedure using microlaryngoscpic technique. The histopathological examination result indicated High-grade large cell neuroendocrine carcinoma .

CT scan was requested for the patient before surgery. A tumor located in the supraglottis was reported, consistent with laryngoscopy findings. No lymph node metastasis was observed in the neck compartments or thorax, as stated in the report.

The patient underwent surgery, and the epiglottis was excised along with the hyoid bone (Laryngectomia partialis supraglotica- Epiglotectomia). The patient was consulted with oncology and was advised to undergo regular follow-up.

No recurrence was detected in the patient who was followed up regularly, but a fixed lesion compatible with V quadrant was palpated in the left neck examination.

In the performed CT scan, lymph node metastases consistent with the physical examination were detected. The patient was consulted with oncology and underwent modified bilateral radical neck dissection.

Conclusion

The most malignant and second most common of the NTL is small cell carcinoma, neuroendocrine type (SCCNET). At presentation approximately half of patients with SCCNET have cervical metastases. Treatment is using similar protocols to those for small cell carcinoma of the lung.

Keywords: Neuroendocirine Carcinoma of the Supraglottis,block dissectio,Laryngeal Cancer

UNUSUAL SIZE OF AN UNCOMMON NEOPLASM: A GIANT ABRIKOSSOFF TUMOR OF THE LOWER LIMB

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Granular cell tumors are rare tumors typically found in the skin, oral cavity or the digestive tract, usually measuring less than 3-4 cm, accounting for only 0.019 to 0.03% of all tumors, often incidentally discovered. While the majority of granular cell tumors are benign, 1-2%, can be malignant. Malignant lesions have a poor prognosis and limited curative options beyond surgical removal.

Our report examines the case of a 52-year-old female who presented at our clinic concerned about a significant mass in her left femoral region. Due to obesity, the size of the mass could not be initially assessed during initial physical examination. Further investigations, including a fine-needle biopsy and CT scan of the pelvis and inner thigh were performed. The results suggested that the growth was likely benign, initially suspected from lipomatosus origin. The patient was scheduled for surgical removal of the mass for comprehensive management.

A wide local excision of the tumor was performed under spinal anesthesia. Intraoperatively, we encountered a firm, highly vascularized mass measuring 20 x 17 x 20 cm, infiltrating the skin and adjacent muscles. The resected mass measured 2,5 kilos. Histopathological analysis confirmed the tumor was a Granular cell tumor with no malignant characteristics. The postoperative period was uneventful, and a follow-up at three months indicated no evidence of local recurrence. Immunohistochemical studies revealed positive results for SOX10, CD56, and S-100, with a Ki-67 index of about 20%, indicating moderate cellular proliferation.

Granular cell tumors generally manifest as isolated masses across various organ systems, with distinctive characteristics observable only under microscopic examination. Despite being rare and predominantly benign, should be taken in consideration during preoperative work up in low extremity tumors. The prognosis of GCTs hinges on their malignancy status; benign variants typically yield favorable results following wide local excision and rarely recur or metastasize.

Keywords: Granular cell tumor, Abrikossoff tumor, surgical excision

THE EFFICACY OF TRANEXAMIC ACID IN REDUCING PERIOPERATIVE BLOOD LOSS IN TOTAL HIP ARTHROPLASTY

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Total hip arthroplasty (THA) is a common surgical procedure indicated for patients with hip osteoarthritis. A significant concern during THA is perioperative blood loss, which can increase the risk of postoperative anemia and the need for allogeneic blood transfusions. Tranexamic acid (TXA), a synthetic lysine analog, functions by inhibiting plasminogen activation, thereby reducing fibrinolysis and bleeding. Recent studies have demonstrated its utility in various surgical fields, including orthopedics. A 68-year-old female with a history of chronic osteoarthritis and no significant cardiovascular or thromboembolic events presented for elective primary THA. Preoperative evaluation revealed controlled hypertension and normal coagulation profiles. In view of minimizing intraoperative bleeding and reducing transfusion requirements, the surgical team decided to use TXA as part of the blood management protocol. A single dose of tranexamic acid was administered before the skin incision according to the recommended dosage of 1 gram via slow intravenous infusion (1 ml/minute). The surgery was uneventful, with an estimated blood loss of 1331 mL calculated with the Mercuriali's formula for blood loss. Postoperative management included routine thromboprophylaxis with enoxaparin 40 mg once daily and early mobilization. Postoperative hemoglobin was 119 g/L, and no transfusion was required. The patient had an uneventful recovery and was discharged on fifth postoperative day. TXA has been shown to significantly reduce blood loss and transfusion rates in THA without increasing thromboembolic risk when used appropriately. Multiple studies support the use of TXA, demonstrating its safety profile even in patients with controlled cardiovascular comorbidities. In this case, TXA administration effectively minimized intraoperative blood loss, maintained postoperative hemoglobin levels, and eliminated the need for transfusion. The use of TXA in THA is a valuable strategy to reduce blood loss and avoid transfusion-related complications. Further research and larger studies will continue to refine optimal dosing strategies and patient selection criteria.

Keywords: Total Hip Arthroplasty, Tranexamix Acid, Osteoarthritis

PLEOMORPHIC ADENOMA OF THE NASAL CAVITY A CASE REPORT

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JZU UK za Uvo Nos i Grlo

Pleomorphic adenoma also known as benign mixed tumour is the most common benign neoplasm of the salivary glands but rarely occurs in the nasal cavity with a reported incidence of 0.4%. These neoplasms usually present with progressive nasal obstruction and epistaxis. Case report: We report a case of a 62 year-old male with pleomorphic adenoma in the left nasal cavity who presented with chronic complaints of on and off epistaxis and progressive unlitateral nasal obstruction.
Examination of the nasal cavity with anterior rhinoscopy combined with trans-nasal endoscopy revealed a polypoid, soft, reddish-grey colored mass in the left nasal cavity which bleeds on touch. Further investigations were ordered, CT scan of the nasal cavity was performed, corresponding to the endoscopic findings. Biopsy of the lesion was performed, with pathology findings demonstrating a pleomorphic adenoma. Complete resection of the tumour was achieved by trans-nasal endoscopic surgery and the bleeding was controlled with thermocautery and nasal packing which was removed 48 hours later without recurrence of bleeding. Final histopathological study of the tumour showed changes who correspond to a pleomorphic adenoma completely excised with negative margins.
The patient followed a satisfactory post-operative course and was discharged from the hospital after 8 days. The follow-up consisting of trans-nasal endoscopy and post-op MRI scan revealed no recurrence of the lesion.
Conclusion: Pleomorphic adenomas are rare neoplasms in the nasal cavity but they are important to consider in the differential diagnosis of slow-growing intranasal masses. Treatment modalities include surgical excision, preferably endoscopic excision. Long-term follow-up, both endoscopic and radiologic, to exclude malignancy is mandatory, even if the tumour appears to be clinically benign and resected completely
Keywords: Pleomorphic Adenoma, Epistaxis, tumor of nasal cavity

DIFFICULT AIRWAY IN PATIENT WITH MULTIPLE FACE SKIN TUMOURS

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Aim – A difficult airway can be a serious anesthesiological problem even for a very experienced anesthesiologist. The impossible airway management is a life-threatening condition for the patient and very stressful for the anesthesiologist. The purpose of this paper is to show the importance of the preoperative assessment that anticipate and avoid the predicted difficulties and complications.

Matherials and methods – Case of 69 years old man, admitted to hospital for surgical treatment on multiple face skin carcinomas. The locations of the tumours, on the nose, buccal and mouth region, the patient body constitution, such as his medical history, predicted the difficult face mask ventilation and intubation. In the patient medical history was established that the patient had polytrauma 3 years ago, when the cervical spine was injured and tracheostomy was performed. The patient had poor C – spine movement, especially upper extension, as result as old trauma. His BMI 30 kg/m2, poor dentition, Mallampati class 4 and thyromental distance – 4 cm were additional difficulties. On CT scan, tracheal stenosis was not detected. In the operating room, after the preoxygenation, the patient was sedated with midazolam, fentanyl and propofol. The face mask ventilation was performed easy, using oropharyngeal airway device, suxamethonium was administrated and using a videolaryngoscope was intubated with flexible endotracheal tube. After the surgery, the patient was extubated in the operating room and transferred in intensive care unit.

Conclusion – Although the difficult airway is the most important cause of anesthesia – related mortality, this undesirable condition can be successfully avoided with adequate preoperative assessment and planning, as well as the use of advanced equipment that make the procedure easier and safer for the patient and the anesthesiologist.

Keywords: Airway, difficult ventilation, videolaryngoscope.

SUPERFICIAL DORSAL VEIN RUPTURE MIMICKING PENILE FRACTURE

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Penile trauma is a rare, but distressing condition that can cause significant anxiety for affected patients. We present the case of a 23-year-old man who arrived at our emergency department with sudden penile swelling and ecchymosis following sexual intercourse. The patient reported immediate pain and rapid subcutaneous hematoma formation, but did not hear a cracking sound. Clinical examination revealed significant swelling and discoloration over the dorsal aspect of the penis without palpable tunical defect or signs of urethral injury. Given the concern for penile fracture, surgical exploration was performed.

Intraoperatively, we identified an isolated rupture of the superficial dorsal vein with an extensive hematoma, but an intact tunica albuginea. The injured vessel was ligated, and meticulous hemostasis was achieved before wound closure. The postoperative course was uneventful, and the patient was discharged the following day with recommendations for conservative management, including abstinence from sexual activity for four weeks.

At the one-month follow-up, the patient reported complete resolution of symptoms with preserved erectile function and no recurrence of hematoma. This case highlights the difficulty in distinguishing superficial dorsal vein rupture from penile fracture based on clinical findings alone and emphasizes the importance of surgical exploration in uncertain cases to ensure proper diagnosis and treatment.

Keywords: Superficial dorsal vein rupture, penile trauma, penile fracture, case report

VERRUCOUS MALFORMATIONS AS A RARE CASE IN THE GROUP OF VASCULAR ANOMALIES WITH SLOW BLOOD FLOW IN CHILDREN

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Verrucous venous malformations belong to the group of vascular anomalies. The International Society for the Study of Vascular Anomalies (ISSVA) classifies these changes into two major groups: vascular tumors and vascular malformations. The vascular malformations group includes lymphatic malformations, venous malformations, and their combinations (malformations with slow blood flow), as well as arteriovenous malformations (malformations with fast blood flow). Verrucous venous malformations (VVM) are a rare congenital vascular anomaly first described by Helwig in 1967. They are characterized by varying degrees of hyperkeratosis of the skin and subcutaneous tissue. Clinically, they manifest as dark red solitary or multiple hyperkeratotic plaques, most commonly localized on the extremities. Treatment is combined and includes surgical intervention, electrocoagulation, laser therapy, topical agents, and systemic medications. Materials and Methods: Between 2019 and 2024, two children with suspected verrucous venous malformations were admitted to the Public Healthcare Institution – University Clinic for Pediatric Surgery. The lesions were unilaterally located on the lower extremities. The gender distribution was 1:1 (male to female), with an average age of 10 years. The changes had been present since birth. There was no positive family history in either patient. Clinically, one of the patients presented with inflammation of the lesion, accompanied by pain and serous secretion. Results: Following appropriate preoperative preparation, both patients underwent surgical excision and autologous skin transplantation. The postoperative course was uneventful. Histopathological examination confirmed the diagnosis. After excision, electrocoagulation was applied to residual lesions. A reduction of approximately 90% in lesion size was recorded. Conclusion: Verrucous venous malformations are a rare type of malformation within the group of vascular anomalies, requiring a multidisciplinary treatment approach.

Keywords: Verrucous venous malformations, biopsy, surgical treatment.

CASE REPORT OF A PATIENT WITH A NEOPLASTIC BRAIN TUMOR

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Neoplastic brain tumors are serious conditions that can cause a variety of neurological deficits and diseases. They arise from abnormalities in the genetic structure of cells, which leads to uncontrolled growth and tumor formation. The diagnosis involves a clinical and examination, like Magnetic Resonance Imaging (MRI) and Computed Tomography (CT). The treatment can vary depending on the type of tumor, location, and the stage of the disease. It usually involves a combination of surgery, radiotherapy, and/or chemotherapy, and in some cases, experimental therapies.

This case report of a patient with a neoplastic brain tumor underscores the intricate challenges and intensive medical care involved in managing such conditions. From initial diagnosis through surgical intervention and post-operative care, the patient's journey highlights the complexity of modern medical treatment. Despite meticulous surgical and post-operative management, including intensive care and tailored therapeutic adjustments, the patient faced complications such as pleural effusion, necessitating escalated antibiotic therapy. Continuous monitoring and diagnostic tools played crucial roles in guiding treatment decisions and monitoring the patient's progress. Ultimately, despite exhaustive medical efforts, the patient's condition deteriorated, leading to a fatal outcome on the 17th day. This outcome serves as a poignant reminder of the uncertainties inherent in treating severe neoplastic diseases and underscores the ongoing need for enhanced therapeutic strategies and supportive care.

In summary, this case emphasizes the importance of a comprehensive and dynamic approach to managing complex medical cases. It highlights the dedication of the medical team and the challenges involved for the whole process.

Keywords: Neoplastic brain tumor, complex managing, medical approach

CONQUERING KLATSKIN: HOW 3D PRINTED MODELS BOOST SURGEONS' CONFIDENCE IN COMPLEX HILAR CHOLANGIOCARCINOMA CASES

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The application of 3D printing technology in surgical oncology has revolutionized the approach to complex procedures such as the resection of Klatskin tumors, which are challenging due to their location at the junction of the right and left bile ducts. By utilizing patient-specific 3D-printed models, surgeons can improve preoperative visualization and planning. These models allow for a detailed understanding of the tumor's anatomy and its relationship to surrounding structures, facilitating better decision-making.

The utilization of 3D-printed models not only improves the accuracy of surgical strategies but also boosts the surgeon's confidence and performance. For instance, studies have shown that the preoperative use of these models correlates with significantly higher rates of achieving negative margins during resection. Research indicates that employing 3D models can substantially reduce operative time and increase the precision of surgical interventions.

The process began with acquiring high-resolution CT data followed by converting these images into a three-dimensional format suitable for printing. The resulting model provided a clear, accurate physical reference that surgical teams could manipulate and explore prior to the operation. For the resection procedure, the 3D-printed anatomy model proved invaluable. It provided critical reference points that guided the surgical approach, enabling precise dissection and minimizing the risk of injury to adjacent structures. Surgeons utilized the model intraoperatively to visualize and confirm the planned surgical margins. This interactive approach not only reinforced the surgeons' confidence but also allowed them to anticipate the need for adjustments during the procedure based on the intricacies observed in the 3D model. The resection was completed successfully without complications, and histopathological analysis confirmed negative surgical margins. Feedback from the surgical team highlighted that the direct engagement with the 3D model contributed to improved accuracy and overall efficiency.

Keywords: Surgery, 3D Printing, Cholangiocarcinoma

CLINICAL CORRELATION BETWEEN THORACIC SPINAL AND INTRATHORACIC SCHWANNOMAS

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Schwannomas are the most frequent primary tumors of the spine (predominantly cervical and lumbar). In contrast, intrathoracic schwannomas are exceedingly rare tumors that arise from the nerve sheath of intercostal nerves. We report a case of a 42-year-old female patient who presented with a 5-month history of impaired ambulation, reduced walking distance (≈400 m), and left-sided chest wall band-like painful and tingling sensations. She was initially evaluated by a neurologist, and after performing a spine and brain MRI, she was referred to neurosurgery. Neurological examination revealed spastic paraparesis with typical characteristics of upper motor neuron lesion (UMNL) and a T8 left-sided radiculopathy with paresthesias, consistent with the MRI findings of a T8 spinal tumor (predominantly left-sided), with severe spinal cord compression. In addition, the patient had undergone left-sided partial 8th rib resection and tumor excision for a left-sided posterior intrathoracic schwannoma (15 years ago). Tumor excision via a T8 laminectomy was performed and early postoperative improvements regarding ambulation and walking distance were noted, in comparison to the preoperative findings. The histopathology report confirmed the diagnosis of schwannoma (WHO grade I). During the regular follow-ups (2.5 years), no clinical findings of an UMNL or radiculopathy/paresthesias were present, and a control MRI was scheduled. The gold standards for diagnosis of schwannomas are contrast-enhanced MRI and CT scans, while histopathological examination remains the definitive diagnostic study. Although extremely rare, schwannomatosis should be considered in the differential diagnosis. Regarding treatment options, open and MIS options are available and chosen according to the specific case. In rare clinical scenarios where an intrathoracic schwannoma has been verified, frequent and thorough neurological examinations should be performed. Early spine MRI should be considered when properly indicated, due to the pending risk of a developing spinal schwannoma, to avoid potential disease progression causing major neurological deficits.

Keywords: schwannoma, spine, intrathoracic, chest wall.

5-YEARS FOLLOW-UP IN A PATIENT WITH MULTIPLE PRIMARY MELANOMAS

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Case presentation: A case of a 46-year-old woman with diagnosed 10 primary melanomas and 2 basal cell carcinomas is presented. She came to the University Clinic for Plastic and Reconstructive Surgery in Skopje for a second opinion two months after a melanoma lesion on the outer part of her left arm had been excised in another institution.
Clinical findings and diagnostic results: The patient had fair skin and high count of nevi all over her body. As part of the regular monitoring schedule, she was advised to perform a full skin check-up at the dermatology unit. Dermoscopy examination recognized 9 pigmented lesions as melanoma lesions and excisional biopsy was advised.
Treatment: Radical excision of all the suspected melanoma lesions was performed with a safe margin ranging between 10-20 mm depending on the dermatological result, clinical findings and depending on where the lesions were located. Some of the defects were closed with direct suture while the others were closed with split thickness skin grafts. The postoperative period was uneventful. The histopathological result revealed 9 primary melanomas and 2 basal cell carcinomas.
Follow up: The performed postoperative PET scan showed no pathological accumulation. Afterwards she was treated with biological therapy (Pembrolizumab) at the Institute for Oncology. A year after, the performed PET scan showed an active subcutaneous lesion in the right upper arm. The lesion was excised and the histopathologic result revealed a secondary deposit of skin melanoma. Four years after the operation, her condition is stable and the results of melanoma tumor markers, CT and PET scans are within normal ranges.
Keywords: skin melanoma, multiple primary lesions, dermoscopy

GIANT LIPOMAS IN THE AXILLARY REGION: 2 CASE PRESENTATIONS

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Introduction: Lipomas are the most common benign mesenchymal tumors in adults. Generally, they are less than 5 cm in size. However, on rare occasions, they can present as giant lipomas measuring more than 10 cm in size. The axillary region is an unusual location for lipomas in general, especially for giant lipomas. Case Presentation: We present two cases of giant lipomas in the axillary region. Both patients were male and presented with a painless mass in the left axillary region. In the first case, the lipoma was located in the left axilla and extended to the axillary vessels without compressing them. In the second case, the tumor was situated in the left axillary region but beneath the pectoralis major muscle, extending all the way to the scapula. It was adjacent to the axillary vessels and the brachial plexus but did not invade the neurovascular bundle. In the second case, a team of plastic and thoracic surgeons performed the operation. Discussion: The mechanism of lipoma formation is not completely clear, but it includes two potential and overlapping mechanisms in which trauma seems to play a major role. Treatment options include surgical excision or liposuction. In the presented cases, surgical excision of the lipomas was performed without any operative or postoperative complications and recurrence. Conclusion: Giant lipomas in the axillary region should be removed to establish the pathohistological diagnosis and to prevent potential compression of the neurovascular structures. In our opinion, surgical excision is the preferred treatment method because it carries a lower risk of damaging vital structures and offers better control against local tumor recurrence.
Keywords: giant lipoma, axillary region, surgery

HYDATID CYST OF THE LEFT KIDNEY MIMICKING RENAL CELL CARCINOMA

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Case Presentation: A 41-year-old female presented with intermittent left flank pain and mild hematuria for several months. Magnetic resonance imaging suggested a tumor formation concerning for renal cell carcinoma, with a 5 × 3 cm cystic lesion in the left kidney. Computed tomography further indicated possible neoinfiltration. Laboratory tests were unremarkable. Due to suspicion of malignancy, the patient underwent laparoscopic partial nephrectomy. Intraoperatively, a well-encapsulated cyst was excised while preserving renal parenchyma with clean surgical margins, requiring the removal of a small portion of the parenchyma. Given its cystic consistency, an Endo bag was used immediately after dissection to prevent spillage and potential dissemination of the tumor. Histopathology confirmed the diagnosis of renal hydatid cyst caused by Echinococcus granulosus.

The patient recovered uneventfully and was discharged on postoperative day four. Albendazole therapy was initiated for three months to prevent recurrence.

Renal hydatid cysts are often asymptomatic and diagnosed incidentally. Imaging, including MRI, may mimic renal cell carcinoma, making histopathology essential for definitive diagnosis. Proper intraoperative techniques, such as the use of an Endo bag, are crucial to prevent dissemination. Surgical removal remains the treatment of choice, with antiparasitic therapy reducing recurrence risk.

Conclusion: This case highlights the importance of considering hydatid disease in renal cystic lesions, even when imaging suggests malignancy. Careful handling of the cyst during laparoscopic partial nephrectomy is essential to prevent dissemination and recurrence.

Keywords: Hydatid cyst, Echinococcus granulosus, renal echinococcosis, laparoscopic partial nephrectomy, renal cell carcinoma mimic, Endo bag usage

DESMOID TUMOR IN A 7-YEAR-OLD CHILD: CASE REPORT AND LITERATURE REVIEW

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Introduction: Desmoid tumors, though rare entities present a unique management challenge due to their variable clinical behavior and potential for recurrence. These tumors often require individualized treatment approaches especially in pediatric patients, balancing intervention with the risks of recurrences and complications.

Case Presentation:We report a case of a 7-year-old male patient, who underwent a clinical examination due to swelling in the left gluteal region. On clinical examination, a solid tumor mass in the left gluteal region was detected and an MRI was performed confirming the presence of a large soft tissue tumor mass. A biopsy of the lesion was made, and thepathohistological analysis of the specimen revealed the presence of a desmoid tumor. After the biopsy, resection was performed, and the diagnosis was confirmed once again in the definite specimen. Two years after the surgery tumor recurrence was observed at the site of the initial surgery. Recurrence was confirmed with an MRI, and second surgery was performed. Postoperative complications included paresis of the peroneal nerve.Six months after the surgery, another tumor recurrence was observed. According to the latest guidelines from the Desmoid Working Group, and after tumor board discussion we proceeded with a "watch-and-wait" approach. Tumor progression was observed after 6 months of follow-up, with the lesion reaching a total size of 16 cm.

Conclusion: This case highlights the complexity of desmoid tumor management and the necessity of personalized treatment strategies. While surgical resection remains an option in cases of functional or life-threatening compromise, a non-interventional approach may be suitable in select cases, as demonstrated here. Larger studies are critical to refining the management guidelines for this rare entity.

Keywords: Desmoid tumor, recurrence, tumor management, watch-and-wait approach

MULTIDISCIPLINARY TEAM IN TREATMENT OF HIGH ENERGY TRAUMA OF LEFT LOWER LEG

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High- energy fractures of lower leg are complex lesions that may be associated with soft tissue damage and severe complications, such as compartment syndrome and infection. This case report interests a professional motocross freestyler with complex tibia and fibular open fracture, with soft tissue damage. The initial assessment revealed surgical stabilization of the tibia, intramedullary osteosynthesis with wedge. The open lacero-contused wound of the anterior lower leg after the surgery complicated with infection. Necrectomy and Suprasorb A + Ag dressing was performed for per secundam healing of the wound.
For mounts later, despite the complexity of the fractures, the gravity of the soft tissue lesion and subsequent complications, the patient healed. This satisfactory result depended on the correct management in terms of type of treatment and timing. It highlights the importance of a multidisciplinary approach to navigate the intricacies of high energy trauma care.
Keywords: High- energy fractures, soft tissue damage, multidisciplinary

DEEP BRAIN STIMULATION: A PROVEN STANDARD IN TREATING ADVANCED PARKINSON'S DISEASE

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INTRODUCTION: Parkinson's disease (PD) is a progressive neurodegenerative disorder characterized by motor symptoms such as bradykinesia, rigidity, tremors, and postural instability. It remains a substantial global burden, affecting millions of people worldwide. Traditional pharmacological treatment for PD helps with symptomatic relief but often leads to adverse side effects and limited long-term efficacy. Deep brain stimulation (DBS) is a proven method for the treatment of PD, which involves the implantation of electrodes into deep brain regions and the delivery of electrical impulses to them. This technique modulates neuronal activity within the basal ganglia circuitry, which plays a major role in the pathogenesis of PD.
AIM: The aim of this article is to present the key aspects of DBS treatment, including patient selection, preoperative planning, and step-by-step surgical procedure.
MATERIALS AND METHODS: The study involved patients operated on in the Clinic of Neurosurgery at St. Marina University Hospital in Varna between 2019 and 2024.
RESULTS: While DBS is a highly effective treatment option (provides substantial symptom relief, improved quality of life and reduction in medication-related side effects), it is essential to acknowledge its potential risks and limitations like surgical complications, patient selection, serious preoperative planning and maintenance.
CONCLUSION: Deep brain stimulation represents a proven approach to managing PD, offering a therapeutic strategy that may help those patients who do not respond satisfactorily to pharmacological treatment and develop side effects. The technique continues to refine the intricacies of DBS and find its broader applications. The future of DBS promises improved patient outcomes and enhanced quality of life.
Keywords: Parkinson's Disease, Deep Brain Stimulation, Neurodegenerative Disorder, Tremor

Internal Medicine

THE EFFECT OF GERIATRIC SYNDOMES ON ACTIVITIES OF DAILY LIVING IN FRAIL PATIENTS

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Geriatric syndromes, including physical, mental and psychosocial limitations, significantly effect the daily activities of frail elderly patients. Frailty is a geriatric syndrome that can manifest as malnutrition, incontinence, falls, osteoporosis, dementia and pressure ulcers. These conditions may impair the ability of elderly patients to perform activities of daily living.

This case report presents a 93-year-old female patient who was referred to our clinic due to altered consciousness for two weeks, a skin injury on her left tibia from a fall a week ago, and becoming bedridden, which led to the development of a stage 2 pressure ulcer on the sacrum. The patient had a history of psoriasis vulgaris, gout and multiple surgeries, including two hip fracture operations and a lumbar hernia surgery. Upon physical examination, stage 2 pressure ulcers on her sacrum and traumatic lesion of the tibia were identified. No organic cause for the fall or loss of consciousness was found, but a urinary tract infection was diagnosed and treatment with fosfomycin was initiated.

The patient was provided with protein-rich nutritional support and wound care. Mobilization was improved through in-bed exercises supervised by a physiotherapist and she progressed to walking with a walker. After 28 days of treatment, the pressure ulcers completely healed and the patient regained mobility. Wound care training was provided to her family and the patient was discharged.

In conclusion, geriatric syndromes have a significant impact on the daily activities of frail elderly patients. Effective management, including wound care and psychological-physical rehabilitation is crucial for restoring mobility and improving the quality of life for these patients.

Keywords: Frailty, geriatrics, activities of daily living

SEVERE MANIFESTATION OF LIBMAN-SACKS ENDOCARDITIS REVEALING SYSTEMIC LUPUS ERYTHEMATOSUS

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Libman-Sacks endocarditis (LSE) is a rare, non-infective form of endocarditis commonly associated with systemic lupus erythematosus (SLE), antiphospholipid syndrome, and sometimes malignancies. It is typically asymptomatic, and rarely causes significant valvular issues, which result in symptoms of heart failure.

This case report highlights a rare instance of severe presentation of LSE, the importance of differentiating it from infective endocarditis, and the need for prompt diagnosis and treatment in a rapidly deteriorating patient.

We report the case of a 42 year old woman presenting with severe pitting edema, dyspnea, fatigue, low grade fever, initially diagnosed with minimal change glomerulopathy and subsequently on corticosteroid therapy. Despite hospitalization and therapy, her condition worsened rapidly, necessitating transfer to the ICU and culminating in acute heart failure and hemodynamic decompensation. An echocardiogram showed two large vegetations on the aortic and mitral valves, indicating the need for empirical antibiotic treatment and immediate valve replacement surgery. During the post-operative period, the patient remained stable; however, a 24-hour Holter monitor detected a few episodes of second-degree AV block, which could be attributed to another manifestation of SLE.

Differentiating LSE from infective endocarditis was challenging, and we relied on sterile blood cultures, low procalcitonin levels, and histopathological confirmation of sterile valve vegetations. Further diagnostic challenges arose due to immunosuppressive therapy masking lupus-specific antibody findings, complicating the confirmation of underlying SLE. Final outpatient immunological testing revealed low C3 and C4 levels, positive anti-dsDNA antibodies, positive anti-histone antibodies, a positive lupus anticoagulant (LA) test, and negative ANA antibodies.

This case underscores the importance of considering LSE in patients with unexplained echocardiological valvular findings and severe systemic symptoms. Finally, it highlights the need for timely diagnosis, and multidisciplinary management to improve outcomes and address the complex interplay of systemic and cardiac manifestations in such cases.

Keywords: Libman-Sacks Endocarditis, Acute Heart Failure, Systemic Lupus Erythematosus

RAMSAY HUNT SYNDROME: THE RARE INVOLVEMENT OF CN IX AND CN X

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Ramsay Hunt Syndrome (RHS) is a rare neurological condition caused by the reactivation of the Varicella Zoster Virus (VZV) within the geniculate ganglion, typically affecting the 7th and 8th cranial nerves. It presents with facial paralysis, auricular vesicles, and vestibulocochlear dysfunction (including hearing loss and tinnitus), often accompanied by swallowing difficulties and hoarseness. This syndrome can also involve the 9th and 10th cranial nerves, though these are less frequently affected.

A 52-year-old female with a history of meningioma surgery presented with Grade 3 peripheral facial palsy and was diagnosed with RHS after developing Grade 4-5 PFP, right auricular pain, redness, vesicular lesions, hearing loss, vocal cord paralysis and other symptoms. Initial treatment with Prednol (prednisolone) and Acyclovir reduced inflammation, controlled the infection, and improved symptoms.

After 14 days of treatment, the patient showed significant recovery, with regression of facial paralysis and auricular vesicles, as well as restoration of swallowing function and resolution of hoarseness.

RHS is primarily diagnosed through clinical presentation, with confirmatory tests such as polymerase chain reaction (PCR), gadolinium-enhanced temporal MRI, and electroneuronography (ENoG) being useful but not routinely performed. Early intervention, ideally within the first 72 hours, is crucial for improving recovery outcomes. Antiviral therapy (e.g., Acyclovir) and corticosteroids (Prednol) are the cornerstones of treatment. Prognosis varies; younger patients tend to have better recovery rates compared to the elderly. However, hearing loss and tinnitus may persist in up to 50% of cases. In cases of incomplete recovery, facial nerve decompression may be considered.

This case emphasizes the importance of early diagnosis and treatment in Ramsay Hunt Syndrome to optimize recovery and reduce the risk of long-term complications such as postherpetic neuralgia and permanent facial paralysis.

Keywords: Ramsay Hunt Syndrome (RHS), Herpes Zoster Oticus, Herpes Zoster, Facial Nerve Paralysis, Vocal Cord Paralysis

ROEMHELD SYNDROME IN A PATIENT WITH PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA

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This case report covers Roemheld Syndrome in a 49-year-old female with Paroxysmal Supraventricular Tachycardia (PSVT), associated with a sliding hiatal hernia and gastroesophageal reflux disease (GERD). Even though the patient took over 20 years of amiodarone therapy, the patient continued to experience persistent tachycardia and palpitations. Radiological imaging, specifically a barium swallow imaging test in the Trendelenburg Position again confirmed the presence of hiatal hernia and Gastroesophageal Reflux Disease (GERD). The present hernia on the patient was identified as the likely cause of vagal nerve irritation, contributing to the Paroxysmal Supraventricular Tachycardia (PSVT).

The patient's clinical presentation and the absence of other underlying cardiac or metabolic causes led to the suspicion of Roemheld Syndrome, a disorder where gastrointestinal issues such as GERD or hiatal hernia are linked to cardiac arrhythmias. In this case, vagal nerve irritation and increased intra-thoracic pressure from the hernia, likely led to the arrhythmia. Initial management with intravenous verapamil provided relief, reducing temporarily the tachycardia and palpitations.

Given the persistent symptoms and the association with hernia, the patient was treated with calcium channel blockers, which contributed to slight improvement in symptoms by alleviating diaphragmatic contractions and reducing the pressure in thoracic region. Based on her radiological findings, the decision was made to perform surgery for her sliding hiatal hernia. Following the successful surgical repair, the patient's symptoms of tachycardia and palpitations were resolved, together with her gastrointestinal issues.

This case highlights the importance of recognizing Roemheld Syndrome in patients with unexplained and underlying cardiac arrhythmias, particularly those with GERD or hiatal hernia. It emphasizes the value of addressing underlying gastrointestinal conditions, such as hiatal hernia, in managing cardiac arrhythmias. Post-surgical improvement further highlights the potential impact of treating the gastrointestinal cause in alleviating and eliminating cardiac symptoms.

Keywords: Roemheld Syndrome, Paroxysmal Supraventricular Tachycardia (PSVT), Sliding Hiatal Hernia (HH), Vagal Nerve Irritation, Gastroesophageal Reflux Disease (GERD)

COMPREHENSIVE EVALUATION LEADING TO THE DIAGNOSIS OF ACUTE CORONARY SYNDROME

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Introduction: Preventive medicine encompasses efforts to protect the health of individuals and communities, prevent diseases, and promote well-being. It can be categorized into five key levels: primordial prevention, primary prevention, secondary prevention, tertiary prevention, and quaternary prevention. Primary care physicians play a critical role in this process, assessing health risks and planning appropriate services.

This article aims to present a case from our family health center where, after comprehensive evaluation and referral, potential mortality and morbidity were prevented.

Case Report: A 58-year-old male patient with a 9-year history of hypertension presented to our family health center with complaints of pollakiuria.Physical examination revealed uncontrolled blood pressure and insufficient knowledge about his condition.Laboratory tests showed potassium: 6.1 mmol/L and creatinine: 1.7 mg/dL.Electrocardiography revealed sinus bradycardia (45 bpm). The patient's laboratory history was reviewed in the system, showing findings suggestive of chronic kidney disease. Due to acute hyperkalemia and sinus bradycardia, the patient was referred to a university hospital.Further evaluation revealed elevated troponin levels, an ejection fraction of 60% on echocardiography, and regional wall motion abnormalities. Coronary angiography revealed right coronary artery blockage, and the patient underwent stent placement.The patient is now under multidisciplinary follow-up by the relevant specialists and the family health center.

Conclusion: Family medicine serves as the first point of contact in healthcare systems, with patients often presenting with undifferentiated symptoms and limited knowledge about their condition. In preventive medicine, family physicians are responsible for providing effective counseling on diseases, medications, and regular examinations. In this case, the patient, who lacked sufficient knowledge about his disease and condition, was comprehensively evaluated, appropriately referred, and treated, effectively preventing potential morbidity and mortality. Comprehensive examination, evaluation of past test results, and effective counseling for individuals visiting family health centers are of great importance.

Keywords: Family medicine, prevention, healthcare, acute coronary syndrome, kidney failure

A CASE OF FOURNIER GANGRENE IN PALLIATIVE CARE: THE IMPORTANCE OF A COMPREHENSIVE APPROACH AND CLINICAL COORDINATION

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Introduction: Fournier's gangrene is a necrotizing fasciitis resulting from infection of the perineum and external genital organs. It is a urological emergency with a high mortality rate (16-40%) and requires early diagnosis and treatment. It is more common in males. Risk factors include advanced age, diabetes, chronic liver disease, renal failure, alcoholism, smoking, HIV, and immunosuppression. Diagnosis is based on physical examination findings, such as erythema, edema, cyanosis, necrosis, and crepitus, and can be confirmed by imaging. Early debridement and antibiotics can improve prognosis.

Objective: This case emphasizes the importance of physical examination in diagnosis and highlights the core principles of Family Medicine: comprehensive approach, interclinic coordination, and advocacy.

Case: A 63-year-old male with hepatocellular carcinoma was transferred from Gastroenterology with complaints of testicular bleeding and pain. Examination revealed edematous, cyanotic, and necrotic testicles with crepitus, suggesting Fournier's gangrene. One week prior, he had received intravenous antibiotics for epididymitis, but tomography showed no significant findings, and surgery was not planned. His lab results were: Na: 134 mEq/L, K: 5 mEq/L, creatinine: 1.76 mg/dL, hematocrit: 24.1%, WBC: 15.28 µL. Given the lack of response to antibiotics, Urology re-evaluated the patient and recommended surgical debridement. After successful debridement, the patient passed away on the third day of ICU monitoring.

Conclusion: In this case, a comprehensive approach, combining clinical and physical examination findings, led to the diagnosis of Fournier's gangrene in a patient with risk factors like immunosuppression and chronic liver disease. Although surgery was initially not planned, communication with other departments led to surgical intervention. The critical importance of clinical examination findings in confirming the diagnosis, rather than relying solely on frequently used imaging methods, and the role of adhering to the principles of Family Medicine, including comprehensive approach, care coordination, and advocacy, in early diagnosis and treatment should not be overlooked.

Keywords: disease management, family practice, fournier gangrene, palliative care

THE EFFECTIVENESS OF GROUP INTERVENTIONS AND INDIVIDUAL COUNSELING IN OBESITY MANAGEMENT

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Obesity is a leading global health issue, with its prevalence steadily increasing. Excess fat accumulation negatively impacts quality of life and affects all body systems. Lifestyle modification remains the cornerstone of treatment. This case highlights the role of counseling and group interventions in obesity management, demonstrated through the Obesity School initiative.

A 29-year-old female presented with weight gain. Her medical history included prediabetes, previously managed with metformin, but she was not on regular medication. On physical examination, her height was 157 cm, weight 87 kg, BMI 35.36 kg/m², waist circumference 110 cm, and hip circumference 115 cm. Laboratory results showed an HbA1c level of 5.8%, consistent with prediabetes.

The patient enrolled in an individualized medical nutrition therapy program and an 8-week exercise regimen. At the District Community Health Center's Obesity School, patients were provided with personalized nutritional plans and instructed to perform 10-minute moderate-intensity aerobic exercises which was recommended by Ministry of Health at least three days a week, five times daily. Weekly group sessions included 20-minute brisk walking, moderate-intensity aerobic exercises, and stretching routines with 15 participants. These were complemented by follow-ups and motivational interviews.

After eight weeks, the patient achieved an 8 kg weight loss, reducing her BMI to 32 kg/m², waist circumference to 98 cm, and hip circumference to 114 cm. Significant improvements in anthropometric measurements were observed.

Obesity treatment focuses on establishing sustainable healthy habits. Combining medical nutrition therapy, exercise, and motivational interviewing is essential for achieving and maintaining target weight. This case illustrates how group interventions, alongside individualized approaches, positively impacted patient motivation and outcomes. The Obesity School, implemented in a resource-limited rural setting, underscores the effectiveness of family medicine programs in fostering lifestyle changes.

Keywords: Obesity, Lifestyle Changing, Group-Based Intervention

BENEFIT OF ARNi IN PATIENT WITH HFrEF and COPD

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Introduction: Angiotensin Receptor – Neprilysin inhibitor (ARNi) is a drug specifically designed to treat heart failure, and it consists of two components: an angiotensin receptor blocker (Valsartan) and a neprilysin inhibitor (Sacubitril). ARNi is currently used for the treatment of patients with heart failure with reduced ejection fraction.
Case: Our case is of a 61y.o. man, who came to our clinic for yearly follow up. He had previously been treated for coronary artery disease, had coronary angiography with subsequent percutaneous coronary intervention. The patient also has Chronic Obstructive Pulmonary Disease and diabetes mellitus type 2 and receives treatment for them. On his yearly follow up he had clinical symptoms of heart failure, that was confirmed with echocardiography (ejection fraction of 38%) and was immediately treated with medication for heart failure with reduced ejection fraction according to the latest guidelines (including ARNi and sodium-glucose co-transporter SGLT-2)
Follow up: 4 months after the initial treatment for heart failure, patient had improved ejection fraction (50%) with no persistent clinical symptoms of heart failure.
Conclusion: The use of ARNi in patients with heart failure with reduced ejection fraction, along with the other medications as per treatment guidelines, improves the ejection fraction and relives symptoms of heart failure.
Keywords: Angiotensin receptor – Neprilysin inhibitor, Heart failure, ejection fraction

URINARY BLADDER NEPHROGENIC ADENOMA IN HEMODIALYSIS – REPORT OF A RARE CASE

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Introduction: Nephrogenic adenoma (NA) is an uncommon lesion of the urinary tract which is found mostly in the urinary bladder (80% of cases). It presents macroscopically as a polypoid tumor discovered in patients who usually have asymptomatic hematuria. NA of the urinary bladder may be associated with recurrent urinary tract infections, diverticula of the bladder, kidney transplantation and a number of irritative factors. NA is more common in the males, and it can appear at any age. The underlying pathogenesis for the development of nephrogenic adenoma has not been completely elucidated.
Case report: We present a case report about 41-year-old male with ESKD-HD program since 2017 due to extra capillary glomerulonephritis. The patient had a kidney transplant from a living donor in 2018 with postoperative graft rejection. In April 2024th he reported hematuria, hematospermia and urethral discharge. An empirical antibiotic therapy was started. Urine culture was negative; laboratory analysis was normal; a swab was taken from the urethra was negative. The patient was sent for a urological consultation. Cystoscopy was performed with the finding of bladder neoformation (10mm) and operative treatment was indicated for surgical resection. Pathohistological analysis showed chronic cystitis with focal intestinal metaplasia and a zone of NA; no atypia or changes for malignancy were detected in the samples. Control cystoscopy was performed 6 months later, without signs of exophytic tumor formations.
Conclusion: Nephrogenic adenoma is a rare, highly recurrent benign disease that can clinically and pathologically mimic a malignant lesion and occur even after the beginning of dialysis. Adequate awareness and proper management and close follow-up are mandatory for early diagnosis and timely detection of recurrence.
Keywords: nephrogenic adenoma, hemodialysis, kidney transplantation, hematuria

WHEN CARBAPENEMS FAIL - A CASE FOR CEFTAZIDIME IN AN UNUSUAL RESISTANCE PATTERNS

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This report highlights the case of a 73-year-old male patient with recurrent severe urinary tract infections. On December 30, 2024, an unusual strain of Klebsiella pneumoniae was isolated from his urine, showing resistance to carbapenems - imipenem and meropenem, but susceptibility to ceftazidime and cefepime. Further phenotypic analysis revealed that the strain was ESBL positive, as well as producing OXA-48 carbapenemase. Based on these findings, the clinical team initiated ceftazidime therapy. The patient showed clinical improvement within 48 hours. Subsequent urine cultures were negative for bacterial growth. This case challenges the assumption that carbapenems always offer the broadest spectrum coverage compared to extended-spectrum cephalosporins. Further investigations at the molecular level are needed to better understand the underlying cause of this unusual
resistance/susceptibility pattern.
Keywords: Klebsiella pneumoniae, carbapenems, cephalosporins, resistance, susceptability, OXA-48 carbapenemase

NEPHROTIC SYNDROME IN A YOUNG ADULT MALE

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Background: Nephrotic Syndrome is a rare kidney disease that can affect people of all ages, although it is more common in children.
Case Presentation: This 26 y/o male presented to our clinic with a previous diagnosis of CHF and lymphedema. He developed swelling that started in his ankle and progressed to his entire body with a weight gain of approximately 60lbs over six months. He had some shortness of breath with exertion but no chest pain or orthopnea. Previous workup included a negative doppler US of both legs, UA with 3+ protein, BNP 159, normal renal function and LFTs, and a CXR with borderline enlarged heart and clear lung fields. BP on presentation was 169/95, weight 322 lbs and he was already taking Furosemide, Lisinopril and Metoprolol. Further testing revealed significant proteinuria (>2000mg/24 hr, although his urine volume was low), high total cholesterol (550) and LDL (464), low albumin (<2.5), normal ANA, with a normal renal ultrasound and echocardiogram. He was started on Atorvastatin and referred to Nephrology.
Treatment & Outcome: After a renal biopsy showed Minimal Change Disease, he began 60mg Prednisone. Over the course of 8 months, he has lost over 100 lbs, his BP has normalized on Metoprolol and his cholesterol levels are normal. His Prednisone has been tapered down to 5mg daily, and he has stopped his diuretic. He continues to see the nephrologist for ongoing management.
Conclusion: Minimal Change Disease is much more common in children than adults. Because there are multiple causes for nephrotic syndrome, especially in adults, a biopsy is indicated prior to starting treatment. With appropriate treatment, most patients will go into remission, although they may experience relapses.
Keywords: edema, proteinuria, hyperlipidemia

DISSEMINATED NOCARDIOSIS WITH NODULAR AND CAVITARY PNEUMONIA IN A RENAL TRANSPLANT RECIPIENT

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A 59-year-old man with a history of hypertension, emphysema, and end-stage renal disease underwent deceased donor kidney transplantation with thymoglobulin induction four months before presentation. His immunosuppressive regimen consisted of prednisone and tacrolimus. His post-transplant course was complicated by ST elevation myocardial infarction one month after renal transplant requiring coronary bypass surgery, complete heart block necessitating pacemaker implantation, ablation of AV nodal reentry tachycardia two months after transplantation, and a recent diagnosis of BK polyoma viremia. He presented to the emergency room with a three-week history of weakness, fatigue, myalgias, poor appetite and weight loss, and several days of dry cough, shortness of breath, and confusion. He was hypotensive, tachycardic, with low grade fevers, and hypoxic with room air saturation of 81% and was intubated for acute hypoxemic respiratory failure. Laboratory studies were remarkable for mild anemia, leukocytosis, acute on chronic renal failure, mild transaminitis and hyperglycemia. COVID-19 PCR, influenza PCR, urine legionella and streptococcus pneumoniae antigens were negative. CT chest showed a consolidative opacity with cavitation in the lingula and numerous nodular opacities throughout both lungs. CT head demonstrated chronic microvascular ischemic changes and a chronic left caudate lacunar infarct. A noncontrast MRI brain revealed scattered punctate nonhemorrhagic foci of diffusion restriction, indicating multifocal small infarcts suggestive of a proximal embolic source. While a transesophageal echocardiogram did not show vegetations, he had multiple atherosclerotic plaques in the ascending aorta and aortic arch.

He underwent a diagnostic bronchoscopy with bronchoalveolar lavage. Three days after admission, blood and bronchoalveolar lavage cultures grew nocardia cyriacigeorgica. He improved after antibiotic treatment with sulfamethoxazole-trimethoprim, linezolid and imipenem for disseminated nocardiosis was initiated and was eventually discharged to a rehabilitation facility.

Nocardiosis, a rare, life-threatening infection that causes nodular and cavitary pneumonia, should be considered in the differential diagnosis of transplant patients with pneumonia.

Keywords: Nocardiosis, Pneumonia, Transplant, Immunosuppression

TRIPLE KILLERS –INFLUENZA A, COVID-19 AND STAPHYLOCOCCUS AUREUS PNEUMONIA IN A PREVIOUSLY HEALTHY WOMAN

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A 55-year-old woman with no past medical history presented to urgent care in early 2025 with a three-day history of shortness of breath, cough, fever, sore throat and hemoptysis. She suffered a cardiac arrest with pulseless electrical activity (PEA) at the urgent care facility, with return of circulation (ROSC) after 15 minutes, was brought to the emergency room, intubated and started on vasopressors for septic shock. Labs were notable for mild acute kidney injury, leukopenia, thrombocytopenia, and a severe lactic acidosis with pH of 6.82. She tested positive for both influenza A and COVID-19 viruses. CT chest angiography demonstrated extensive patchy consolidative infiltrates throughout all lobes with associated extensive areas of cavitation on the right, and multiple rib fractures. CT head showed an acute left occipital infarction. CT of the abdomen and pelvis revealed gas within the lumen of the right external iliac vein extending to the common femoral vein without extension into the inferior vena cava. A potential site of entry was an intraosseous vascular access in the right tibial bone placed during the out-of-hospital code.

The patient developed increased hemoptysis with bloody secretions rather than frank blood, and on arrival in the intensive care unit from the emergency department, she suffered another cardiac arrest (PEA) and was coded twice with one brief period of ROSC, for a total of 40 minutes. Bronchoscopy revealed diffuse bleeding from her airways without a discrete or unilateral bleeding source; cold saline and endotracheal tranexamic acid were not effective in stopping the diffuse alveolar hemorrhage caused by the pneumonia. After her death, her blood cultures grew staphylococcus aureus, explaining the cavitary pneumonia seen on CT. While secondary bacterial pneumonia with staphylococcus aureus is common after either influenza A or COVID-19 pneumonia, triple infection with all three organisms is rare.

Keywords: Influenza A, COVID-19, staphylococcus aureus, pneumonia

AN UNUSUAL NAIL FINDING

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Background: Green nail syndrome caused by Pseudomonas aeruginosa is a unusual diagnosis in a 65 year old not having chronic onycholytic nails or immunocompromised. This case highlights the photo diagnosis, treatment and outcome of P. aeruginosa skin and soft tissue infections.

Case Presentation: Patient is a 65 year old female. She presented to the clinic with a green thumb nail. She denied recent travel, exposure to hot tubs or sea water. She later endorsed going fishing with her husband at the mountain lakes but denied submersion for prolonged periods of time. She does endorse gardening, but this was winter and not typical gardening season. She denied prior fungal infections. She is not immunocompromised.
Treatment and Outcome: P. aeruginosa can be difficult to treat. If in a hospital setting it can cause severe morbidity and mortality. Culture and sensitivities are helpful if able to get a sample, which is difficult in Green Nail Syndrome. Topical therapy is typically the first line treatment for this condition such as fluoroquinolones and antiseptic soaks. Patient's insurance would not cover topical treatment so systemic treatment with oral ciprofloxacin for 4 weeks was effective.
Conclusion: P. aeruginosa is often a difficult treatment process for many skin and soft tissue infections. It should be considered within the differential of patients presenting with gram negative bacteria on gram stain. This case highlights the unusual presentation and diagnosis, treatment and prognosis of P. aeruginosa in a 65 year old female.
Keywords: Oncholytic, Immunocompromised, Pseudomonas

SUCCESSFUL CONSERVATIVE TREATMENT OF CECAL DIVERTICULITIS MIMICKING ACUTE APPENDICITIS

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Diverticulosis occurs when small defects in the colon wall create pouches (diverticula), which can become infected or inflamed (diverticulitis). Cecal diverticulitis, although rare, can be misdiagnosed as acute appendicitis due to similar symptoms. The optimal management of this condition is still controversial, ranging from conservative antibiotic treatment to extensive resection. We present a case of cecal diverticulitis successfully treated conservatively.

Forty – year - old female was referred to our clinic with lower abdominal pain and nausea that began two days prior to admission. She was subfebrile and there was no history of change in bowel habits. Physical examination showed rebound tenderness in the lower right abdomen, with elevated inflammatory markers. The CT scan revealed thickening of the cecal wall, with surrounding fat stranding and evidence of localized edema, along with possible fluid collection. A hyperdense cecal diverticulum was also noted, and several non-inflamed diverticula in the ascending colon. Additionally, the CT scan demonstrated a dilated appendix (8 mm) with peri-appendiceal fat stranding. No signs of perforation or abscess formation were observed. Considering the absence of complications such as perforation or abscess, and the patient's stable clinical condition, a conservative treatment approach was chosen. The treatment strategy included antibiotics, supportive care, hydration, pain management, and close monitoring. No surgical intervention was required and the patients was safely discharged several days later.

Cecal diverticulitis can present with symptoms and imaging findings similar to acute appendicitis, making it prone to misdiagnosis. This case highlights the importance of careful evaluation in order to differentiate between the two conditions and to guide appropriate treatment.

Keywords: diverticulosis, cecal diverticulitis, appendicitis

SGLT2i– POSSIBLE GAME-CHANGERS IN FOCAL SEGMENTAL GLOMERULOSCLEROSIS

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Introduction: Focal segmental glomerulosclerosis(FSGS) is rare disease, based on its cause, is classified as primary, secondary, or genetic, with a prevalence of <1/1,000,000. In NMacedonia, endemic region is Ohrid-Otushe area. FSGS presents with sclerosis at level of the glomeruli, leading to irreversible damage to affected glomeruli, which decreases kidney function.

Majority of FSGS cases progress to ESRD within the first 10 years after diagnosis, while only 15% of patients with sub-nephrotic syndrome reach ESRD after 10 years.

Presented patient, with FSGS, with significant reduction of proteinuria after introduction of SGLT2i.

Case report: A 27-year-old patient from Struga was admitted to the UC of Nephrology Skopje for a renal biopsy due to findings of urinary sediment, hematuria, proteinuria (2.6–3g/L),presence of bacteria. On admission, extremities show no swelling, no peripheral edema. Ultrasound: RK 106×54mm, parenchyma 22mm, LK: 110×48mm, parenchyma 20mm. Histopathology: enlarged glomeruli with open and patent capillaries, mildly altered glomerul, GBM, slightly accentuated mesangial matrix. Findings consistent with minor glomerular abnormalities that do not exclude FSGS

Treatment was initiated: Prednisolone 60mg first week, then tapered to maintenance dose, Losartan 50mg, Lansoprazole 30mg, Ideos.

The effect of corticosteroids on proteinuria was unsatisfactory in period of four months, proteinuria increased. Proteinuria reduction occurred when SGLT2i, Dagrafors was introduced alongside corticosteroids, proteinuria reduced to 0.45g/du.

Conclusions: The response to therapy is variable, most patients experience disease progression leading to ESRD. KDIGO guidelines for CKD strongly recommends SGLT2i as medications that slow the progression of CKD. SGLT2i shows benefit in reducing proteinuria, thereby improving renal function in patients with FSGS.

Keywords: Focal-Segmental-Glomerulosclerosis(FSGS), Chronic-kidney-desease (CKD), SGLT2 inhibitors.

OBSTRUCTIVE JAUNDICE AND GASTRIC OUTLET SYMPTOMS CAUSED BY MUCINOUS OMENTAL CYST: A RARE ENTITY

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A 33-year-old male presented with jaundice, epigastric pain, and intermittent vomiting over the past few days. Gastroscopy was unremarkable, but an abdominal CT scan revealed a 15x12 cm cystic lesion, initially thought to arise from the pancreas, along with a stenotic distal segment of the common bile duct and retrograde biliary dilatation. Endoscopic ultrasound (EUS) confirmed that the cyst was not pancreatic in origin but was located adjacent to the greater curvature of the stomach, without involving the gastric wall. EUS-FNA was performed and showed mucin, and cytological analysis revealed mucin-producing cells with mild atypia, classified as class 3 (suspicious for malignancy). Based on these findings, surgical resection was planned; however, prior to surgery, jaundice needed to be resolved. An ERCP was performed, and a 5 cm/10 Fr plastic stent was placed. A complete resection was carried out, and histopathological examination confirmed the diagnosis of an omental cyst. Omental cysts are benign intra-abdominal masses that are most seen in children under 10 years of age, making this case unusual. While these cysts are typically serous-filled and encased by a fibrous wall lined by cuboidal epithelium, the cyst in this case was mucin-filled and contained atypical cells.

Keywords: endoscopic ultrasound, mucinous pancreatic cyst, omental cyst

CHOLANGIOCELLULAR CARCINOMA AS A RARE ENTITY AFTER HEPATITIS C ERADICATION THERAPY

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Treatment of hepatitis C virus (HCV) significantly improved with involvment of direct-acting antivirals (DAAs), enabling many patients to achieve sustained virological response (SVR). Although the risk of liver tumors is significantly lowered, some patients who achieve SVR may still go on to develop hepatocellular carcinoma (HCC). Furthermore, while HCV infection is a recognized risk factor for cholangiocellular carcinoma (CLC), it remains a relatively uncommon form of liver cancer. We present a case of 50 years female patient with appearance of CLC who achieved SVR adhere to HCV treatment with DAAs. This patient had liver cirrhosis at the time of HCV treatment. The interval between achieving SVR and her diagnosis was 3 months post-DAA therapy, at which point she was found to have advanced disease with a 6 cm unresectable tumor. The tumor was initially invisible on abdominal ultrasound. MRI confirmed tumor mass untypical for HCC and liver biopsy was performed for definitive diagnosis for CLC. She underwent two sessions of treatment with transarterial chemoembolization (TACE) and doxorubicin. Two years later, patient is still alive and continues to receive follow-up care every two months at our clinic. Only a small number of CLC cases have been reported in patients with HCV following SVR, but clinicians should remain vigilant for the potential development of aggressive CLC in these patients.

Keywords: hepatitis C virus, cholangiocellular carcinoma, sustained virological response

FALSE POSITIVE DRUG TEST IN PATIENT WITH ACUTE POISONING

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Modern rapid urine drug testing kits sometimes provide false-positive results that may create differential diagnostic difficulties. A 29-year-old male patient was brought by ambulance to the University Clinic for Toxicology in Skopje, after acute poisoning with analgesic/antipyretic drugs (6 pills caffetin cold and 3 pills caffetin), 2 pills of Diazepam 2mg and 3 pills of Amlodipine 10mg, to calm the previous symptomatology of increased body temperature and increased heart rate. Last two years, the patient has been treated by a psychiatrist. He denies the use of any psychoactive substances.

After ingesting pills, he vomited and lost consciousness. On admission, the patient was conscious, contactable, blood pressure was 110/80 mmHg, body temperature was 37°C, with oxygen saturation on room air 97%. ECG with sinus rhythm HR=100/min, QRS=100 msec, QTc=360 msec, without other changes.

On admission, laboratory and toxicological analyses were performed. Rapid immunochromatographic tests in human urine were positive for opiates, amphetamines, caffeine. It was assumed that there is a possibility of a false positive test for opiates, due to codeine which is one of the ingredients of "Caffetin" drug; and false positive test for amphetamine, due to pseudoephedrine which is one of the ingredients of "Caffetin cold" drug.

Qualitative analysis was performed using gas chromatography/mass spectrometry (GC/MS) and liquid chromatography (HPLC), which confirmed the presence of caffeine, codeine, paracetamol, propyphenazone, pseudoephedrine, dextromethorphan, nordazepam, ramipril, amlodipine.

The patient was treated symptomatically, with a non-specific antidote of activated charcoal and discharged on the third day of hospitalization, in good general condition.

Conclusion: Commonly used medications can interact with enzyme immunoassay urine screening tests and result in false-positive results. If a false-positive urine screen result is suspected, nonimmunologic techniques, such as gas chromatography/mass spectrometry or high-performance liquid chromatography, are necessary for confirmation.

Keywords: codeine, pseudoephedrine, Gas Chromatography-Mass Spectrometry, Chromatography High Pressure Liquid

ASSOCIATION OF HYPOTHYROIDISM AND INVERTED T WAVES

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A 49-year-old patient, D.K, was referred for an internal medicine evaluation due to laboratory results (Lu1) indicating hypercholesterolemia (Cholesterol 7.9 mmol/L). In the past year, medication therapy was recommended due to hypertension.. A retrograde anamnesis revealed a history of hyperthyroidism at the age of nineteen and thyroid-suppressive therapy lasting about two years.

The patient had a normal clinical examination, except for the electrocardiogram, where significant inverted T waves were present in leads DII, DIII, AVF, and V3-V6, without chest pain (no previous ECG records available). The patient was further referred for thyroid status testing, but while awaiting lab results, an emergency cardiology consultation was done. The completed tests showed a normal cardiology profile (ECG - negative; Echocardiography - normal function and heart parameters; Holter for blood pressure - controlled blood pressure).

When the patient returned for a follow-up with thyroid status results, findings suggested profound thyroid insufficiency with immeasurable TSH levels (above 75 mIU/L) and fT4 levels (below 0.35 ng/mL) and a high titer of antibodies (anti-TPO above 1000 IU/mL). The previous ECG from one year ago was normal. Thyroid hormone replacement therapy was started, with periodic titration to achieve a euthyroid state. An ultrasound of the thyroid gland showed changes typical for Hashimoto's thyroiditis.

The deficiency of thyroid hormones affects metabolic processes in many tissues, including the heart muscle, as demonstrated by the changes on the electrocardiogram. In addition to bradycardia, delayed atrioventricular conduction, low voltage, prolonged QT interval, atrial and ventricular ectopic activity, inverted T waves are an important indicator of thyroid dysfunction.

This case report aims to remind that inverted T waves do not always indicate cardiovascular disease, but in conjunction with a thorough history, other symptoms, and signs of hypothyroidism, they can suggest checking thyroid function, with the goal of timely diagnosis and causal therapy.

Keywords: Hypothyroidism, ECG, inverted T waves.

PULMONARY ADENOCARCINOMA PRESENTING WITH SYMPTOMS OF ADRENOCORTICOTROPIC HORMONE SECRETION

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Introduction: Ectopic ACTH syndrome is rare with an overall incidence rate estimated at 1-3 new cases per 1 million yearly. It represents 5%–10% of cases of Cushing's syndrome, and approximately 50%–60% of these arise from neuroendocrine lung tumor (SCLC accounting for 3/4 of cases). Although adenocarcinoma is the most common histological type in lung carcinomas, its presentation with a paraneoplastic syndrome is rare. Tumor-associated ACTH production is often so rapid that patients do not have time to develop classic Cushingoid physical findings, instead presenting with hypertension, generalized weakness and acute-onset hyperglycemia. The diagnosis is challenging and the source of ACTH production can be difficult to identify. Prompt diagnosis and treatment are essential to improve outcomes.

Case presentation: We report a rare case of a 35 years old patient with pulmonary adenocarcinoma who presented with symptoms of ectopic adrenocorticotropic hormone (ACTH) production instead of respiratory symptoms. He was a smoker, 40 c/a day. He had a resistant hypertension 3 months before, agitation, insomnia, migrating oedema of the legs and arms, muscle weakness, skin darkening, severe hypokalaemia, hyperglycemia and persistent leucocytosis. Echocardiography revealed LV hypertrophy and dilatation of the ascendent aorta. A markedly elevated serum and urine cortisol, ACTH, dexamethasone suppression test supported the diagnosis of CS. Chest CT showed a right lung mass, the patohistology from bronchoscopy confirmed poorly differentiated adenocarcinoma. Treatment with chemotherapy was started. Despite initial improvement, progressive clinical deterioration occurred, culminating in death 2 months after starting of chemotherapy.

Discussion: Ectopic ACTH secretion is uncommon, but should be suspected in patients with severe hypokalemia, hypertension and hyperglicemia, especially in the context of lung cancer.

Keywords: Ectopic ACTH, Hypertension, Hypokalemia, Lung adenocarcinoma, Paraneoplastic Syndrome.

CONCOMITANT ARTERIAL THROMBOSIS AND PULMONARY EMBOLISM IN PATIENT WITH COLORECTAL CANCER

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Patients with active malignancy remain at high risk of thromboembolic events. Venous thromboembolism, including deep venous thrombosis and pulmonary embolism, is a well-known complication of malignancy and chemotherapy. Arterial thrombosis in the presence of cancer is not as frequent as venous thrombosis and the concurrent occurrence of venous and arterial thrombosis remains a rarity. Patient-related risk factors, including age, smoking, hypertension, and diabetes, are common to both venous and arterial events. This case report highlights the rare occurrence of concomitant venous and arterial thrombosis. A 70-year-old woman presented with dyspnea, cough, pain, and cold sensation in the left arm. Her CT scan suggested complete occlusion of the left brachial artery, as well as massive pulmonary thromboembolism. She is a known case of metastatic colorectal carcinoma, treated with surgery and adjuvant chemotherapy (oxaliplatin/capecitabine, irinotecan/bevacizumab). She has common risk factors: HTA and dyslipidemia. The patient underwent a brachial embolectomy. After surgery, initially treated with subcutaneous enoxaparin, then switched to NOAC (Rivaroxaban), following the protocol for PTE treatment.The occurrence of both arterial and venous thrombosis in patients with advanced cancer is an alarming sign and requires careful management. Mechanisms include hypercoagulability, cytokine release, endothelial dysfunction, chemotherapy, and other treatment effects. Certain chemotherapeutic agents are associated with an increased risk of thrombotic events. Bevacizumab additionally increases the risk of carcinoma-associated thrombosis. The prognosis depends on cancer type, stage, overall health, and treatment response, but in many cases, the co-occurrence of thrombosis and cancer significantly shortens survival

Keywords: venous thromboembolism, arterial thromboembolic events, cancer-associated thrombosis

AUTOIMMUNE DISEASE UNMASKED BY ALLERGIC IMMUNOTHERAPY: A CASE OF SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) AFTER SUBCUTANEOUS IMMUNOTHERAPY (SCIT)

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Background: Subcutaneous immunotherapy (SCIT) is commonly used to enhance immune tolerance in allergic patients by promoting regulatory T-cell (Treg) expansion and shifting Th2-driven responses toward Th1 immunity. While generally safe, in rare cases, immune modulation can contribute to autoimmune disease activation in genetically predisposed individuals. This case highlights the potential for SCIT to unmask systemic lupus erythematosus (SLE) in a patient with no prior autoimmune history.

A 30-year-old male with allergic rhinitis and no known family history of autoimmune disease began SCIT for grass pollen allergy. After six months of treatment, following a standard up-dosing regimen, he developed progressive fatigue, polyarthritis, and photosensitive skin rashes. Laboratory tests revealed:

- Positive antinuclear antibodies (ANA, 1:1280, speckled pattern)
- Anti-double-stranded DNA (dsDNA) positivity
- Low complement levels (C3: 56 mg/dL, C4: 8 mg/dL)

A diagnosis of SLE was confirmed using the 2019 EULAR/ACR classification criteria. SCIT was discontinued, and the patient was treated with hydroxychloroquine and low-dose corticosteroids, leading to significant improvement.

Discussion: The temporal association between SCIT initiation and symptom onset raises the question of whether SCIT unmasked latent autoimmunity or if SLE developed independently. Proposed mechanisms include:

1. Immune Dysregulation: SCIT may disrupt self-tolerance in at-risk individuals.
2. Molecular Mimicry: Allergen peptides may cross-react with self-antigens.
3. Th1/Th2 Shift: SCIT could alter immune responses, contributing to autoimmunity.

Although rare, SCIT-induced autoimmunity emphasizes the need for vigilance, particularly in genetically predisposed patients.

Conclusion: Clinicians should remain alert to potential autoimmune manifestations in SCIT patients. Pre-treatment screening for autoimmune markers, such as ANA, may be beneficial, particularly for those with a family history of autoimmunity. Further research is needed to explore the relationship between SCIT and autoimmune diseases.

Keywords: Subcutaneous Allergen Immunotherapy, Systemic Lupus Erythematosus, Autoimmunity

SUCCESSFUL RESOLUTION OF STAPHYLOCOCCUS AUREUS CATHETER-ASSOCIATED INFECTION WITH SPONDYLODISCITIS AND PNEUMONIA IN A DIALYSIS PATIENT: A CASE OF SOLELY ANTIBIOTIC THERAPY

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Background and Aims: Catheter-associated infections in dialysis patients can lead to severe complications, including spondylodiscitis as a type of osteomyelitis. This case report details a 73-year-old female on dialysis who developed a catheter-associated Staphylococcus aureus infection, resulting in spondylodiscitis at thoracic vertebrae T7-T9 and lumbar vertebrae L3-L4 and secondary pneumonia, due to the impaired movement. The aim is to highlight the diagnostic challenges and demonstrate the efficacy of antibiotic therapy as a standalone treatment.
Methods: The patient presented with persistent back pain, impaired mobility and fever. Diagnostic workup included blood analysis and inflammatory markers(C-reactive protein); blood cultures (hemocultures); magnetic resonance imaging (MRI) and computed tomography (CT) scans to identify the vertebral involvement and assess the extent of the infection. Blood cultures (hemocultures) confirmed the presence of Staphylococcus aureus. Based on these findings, the patient was managed exclusively with targeted antibiotic therapy.
Results: Following a course of intravenous antibiotics tailored to the identified pathogen, the patient exhibited significant clinical improvement. Follow-up assessments indicated complete resolution of back pain, restoration of mobility, and the absence of systemic symptoms such as chills and fever.
Conclusion: This case underscores the importance of early recognition and accurate diagnosis of catheter-associated infections in dialysis patients. With prompt imaging and microbiological confirmation, antibiotic therapy alone can effectively treat complex cases of spondylodiscitis and associated pneumonia, minimizing the need for invasive surgical interventions and reducing morbidity in high-risk populations.
Keywords: Catheter-associated infection, Staphylococcus aureus, Spondylodiscitis, Pneumonia, Dialysis, Antibiotic therapy.

SUPPRESSED THYROID STIMULATING HORMONE LEVELS AFTER INITIATION OF GLP -1 RECEPTOR AGONIST

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43 years old woman is followed for more than 5 years for thrombophlebitis of lower extremities, varicose vein insufficiency, dyslipidemia, DM type 2, HTA, obesity class 1, liver steatosis, Hashimoto thyroiditis with normal thyroid function. In the past year due to poor glucose control, several therapeutic changes were made including replacement of sulfonylureas with SGLT2-i. Due to the persistent UTI SGLT2-i was replaced with GLP-1 receptor agonist after what (15-20 days) she faced with onset of hyperthyroidism followed with palpitations, tachycardia, shortness of breath and hypoglycemia. In the emergency center (foreign country) she was observed for thyrotoxicosis, accompanied by TSH suppression and high levels of fT3, fT4. She was advised to start therapy with thiamazole 20mg twice daily and propranolol with recommendation for further follow-up in the country of residence. Diabetes therapy was discontinued for more than 20 days due to the hypoglycemia after what was once more introduced (GLP-1R and metformin). Control laboratory tests gave positive finding for thyroid stimulating immunoglobulin, (TSI) confirming presence of Grave's disease.

During 6 months of follow up patient got stabilized with normal thyroid hormone levels but still persistent positive values for TSI, controlled glycemic levels and arterial hypertension. The patient is still under observation.

GLP-1 RAs are new therapeutic drugs. Despite conflicting results in the literature, the importance of carefully evaluating thyroid function in diabetic patients, particularly those treated with GLP-1 RAs, is evident. This may suggest necessity of implementing routine thyroid function screenings in diabetic patients undergoing treatment with GLP-1 RAs, aiming to optimize clinical and healthcare management. It is unclear do GLP-1R can provoke autoimmunity?!

Keywords: thyrotoxicosis, GLP-1 ra, adverse effects

ELEVATED TRYPTASE LEVELS IN A SEVERE ASTHMATIC PATIENT UNDERGOING SCIT FOR BIRCH: IMPLICATIONS FOR MONITORING AND PERSONALIZED TREATMENT

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Background: Subcutaneous immunotherapy (SCIT) is effective for severe allergic asthma, particularly in patients sensitized to Birch (PR10). Despite adherence to protocols, some patients experience persistent reactions, suggesting underlying immunological mechanisms. This case highlights a 53-year-old male with severe asthma undergoing SCIT for Birch desensitization, who developed recurrent reactions despite premedication. Notably, elevated tryptase levels were observed, suggesting mast cell activation and the need to evaluate tryptase as a biomarker for high-risk patients.

Case Presentation: A 53-year-old male with severe allergic asthma, sensitized to Birch, initiated SCIT. Despite premedication with antihistamines and corticosteroids, he experienced recurrent reactions after each injection, including mild bronchoconstriction, wheezing, and skin manifestations. These symptoms, although manageable, persisted throughout treatment, prompting further investigation. Blood tests revealed elevated tryptase levels (22 ng/mL) post-reaction, indicating mast cell degranulation. Given the repeated nature of these events, SCIT was reassessed, and alternative approaches considered.

Discussion: Tryptase, a marker of mast cell activation, is associated with severe allergic responses. In this case, elevated tryptase suggests mast cell degranulation contributed to recurrent reactions despite premedication. This highlights the need for individualized monitoring in severe asthma patients undergoing SCIT. Regular tryptase measurement could identify high-risk patients, allowing timely dose adjustments or alternative treatment strategies.

Conclusion: This case underscores tryptase's potential as a biomarker for monitoring SCIT patients with severe asthma. Regular tryptase assessment could guide personalized treatment adjustments, improving immunotherapy safety and effectiveness. Further research is needed to establish tryptase-guided strategies for high-risk patients.

Keywords: Tryptase, Mast Cell, Subcutaneous immunotherapy

RARE CASE OF IMPLANTABLE CARDIAC DEFIBRILLATOR GENERATOR MALFUNCTION

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Implantable cardioverter-defibrillators (ICDs) are indicated for the primary prevention of sudden cardiac death in patients with systolic heart failure defined as left ventricular ejection fraction ≤35% and on optimal medical management. We report a rare case of an ICD generator malfunction due to attack of ventricular tachycardia (VT=176 p/min).The patient is 87 years old male with Chronic heart failure-dilatated cardiomyopathy, Atrial Fib., LBBB, Diabetes Mellitus type two, Chronic kidney failure on regular therapy with beta blocker, double diuretic-loop and potassium sparing diuretics, ACE inhibitor and oral antidiabetic drug. After call to emergency medical servis-194, patient report a repeated chest pain and fatigue, followed with frequent activation of ICD. Medical team examination found on ECG a ventricular tachycardia (VT=176 p/min) with malfunction of the ICD. The patient was promptly transported to the Clinic for Cardiology-Skopje for further intensive care treatment. Patient was admitted, due to ventricular tachycardia, with low blood pressure, and frequent activation of the ICD on intensive care unit and given antiarrhythmic parental drugs. Due to bradypnea an endotracheal intubation was performed and patient underwent mechanical ventilation. After half an hour, he was extubated and after hemodynamic and arrhythmic stabilization was sent to the department for arrhythmia treatment. A technical control of the ICD was preformed and found empty battery of the generator. The reimplantation of the IDC was preformed and the device passed technical control, After the intervention the patient was in stable condition. Manufacturing companies of highly technical and sophisticated devices that revolutionized the world of electrophysiology and medicine should continue to work hard on ensuring the safety of their devices and make solutions available to deal with situations like this. Highly trained physicians and centers capable of addressing these issues with appropriate urgency must be available for patients who receive such devices.

Keywords: Implantable cardioverter-defibrillators, ventricular tachycardia, chronic heart failure-dilatated cardiomyopathy

CARDIO-RENAL METABOLIC SYNDROME

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Background

In 1836, Robert Bright first described the highly interdependent relationship between the kidneys and the heart and pointed out the significant cardiac structural changes observed in patients with advanced kidney disease. Since then, many attempts have been made to summarize the connection between kidney and heart disease and for the first time in 2008, a classification of Cardio-Renal Syndrome was made, which is classified and divided into 5 subgroups. Since 2023, we have been talking about Cardiovascular-Renal-Metabolic Syndrome, which reflects the association of chronic kidney disease, cardiovascular and metabolic risk factors in the development of this complex disease with a major impact on morbidity and mortality. New guidelines and new therapeutic options have been developed in the treatment of this syndrome, promising better prevention, early diagnosis, and better treatment.

Case presentation

We report the case of a 78-year old diabetic man with Coronary-Artery Bypass grafting x3, heart failure of NYHA Class II and EF 50%, development of concentric left ventricular hypertrophy with Chronic Kidney Disease stage 2 and Albuminuria stage 2. After heart surgery and many comorbidities, with multiple interventions and the development of chronic kidney disease, we started treatment with new nonsteroidal mineralocorticoid antagonists and a sodium-glucose cotransporter-2 (SGLT2) inhibitors and achieved significant improvement in terms of renal, cardiac and metabolic disorders. After 5 months LVEF was 57%, Albuminuria has reduced from 527 to 77.4 mg/gr and eGFR from 75 to 80ml/min/1.73m2.

Conclusion

The deterioration of renal function after heart surgery is associated with poor prognosis, including a high risk of rehospitalization, cardiovascular events and death. In the treatment of Cardio-Renal-Metabolic Syndrome after cardiac surgery, a multidisciplinary approach is important.

Key words: Cardio-Renal- Metabolic Syndrome, Nonsteroidal mineralocorticoid antagonists, Sodium-glucose cotransporter-2 (SGLT2) inhibitors.

IGE-MEDIATED IMMUNOTHERAPY-INDUCED EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS (EGPA)

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Background: Eosinophilic Granulomatosis with Polyangiitis (EGPA), formerly Churg-Strauss syndrome, is a rare systemic vasculitis with asthma, eosinophilia, and small-vessel inflammation. The pathogenesis remains unclear, but EGPA results from immune dysregulation. Subcutaneous immunotherapy (SCIT), which targets IgE-mediated immunity, may trigger or worsen EGPA in genetically susceptible individuals. This case highlights the importance of assessing risks in allergic patients with eosinophilic disorders.

Case Presentation: A 40-year-old male with allergic asthma, chronic rhinosinusitis, and mild eosinophilia (600 cells/µL) began SCIT for ragweed and birch pollen. After 12 weeks of up-dosing and monthly maintenance injections, he developed:

- Worsening asthma with frequent exacerbations
- Fatigue, myalgia, and weight loss
- Mononeuritis multiplex (paraesthesia and weakness)
- Marked eosinophilia (2,800 cells/µL, 45% of total WBC)
- Positive p-ANCA
- Elevated ESR (65 mm/hr) and CRP (20 mg/L)

EGPA was diagnosed using revised ACR criteria. SCIT was stopped, and the patient started high-dose corticosteroids (prednisolone 1 mg/kg/day) and cyclophosphamide, showing improvement. Azathioprine was added due to persistent symptoms.

Discussion: The development of EGPA after SCIT raises questions about its role in disease activation. Potential mechanisms include:

1. IgE-Mediated Eosinophilic Activation: SCIT may increase eosinophilic inflammation.
2. Th2/Th17 Dysregulation: SCIT might exacerbate immune responses in eosinophilic patients.
3. Unmasking of Latent Autoimmunity: SCIT could trigger EGPA in predisposed individuals.

Conclusion: SCIT should be approached carefully in patients with eosinophilia or autoimmune tendencies due to the potential for triggering or worsening conditions like EGPA. Screening for eosinophilia and ANCA positivity in high-risk individuals can help mitigate these risks. In situations where biologic therapy (anti-IL-5) is unavailable, corticosteroids and immunosuppressants (such as cyclophosphamide or azathioprine) remain the standard treatment for severe or refractory EGPA. Further research is essential to clarify whether SCIT contributes directly to EGPA onset or if this case represents an incidental association.

Keywords: Subcutaneous Allergen Immunotherapy, Eosinophilic Granulomatosis with Polyangiitis, Autoimmunity

DIFFUSE LARGE B-CELL LYMPHOMA WITH ACUTE RENAL FAILURE

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Background: Diffuse large B-cell lymphoma (DLBCL) is the most common Non-Hodgkin lymphoma among adults (around 30-40%). DLBCL is a fast growing cancer that is very aggressive and proliferates rapidly. The initial etiology of DLBCL is unknown but it is presumed that it arises due to a malignant transformation in B-cells (de novo), it may also be a secondary development due to a transformation from other types of lymphomas. Rarely can DLBCL infiltrate renal tissue and cause acute renal damage. Here we present a patient with acute renal failure associated with diffuse large B-cell lymphoma.

Case presentation: A 36 - year old female presented with a labial tumor (Schwannoma), during her preoperative assessments there were elevated degradation products noted, after which she was sent to a nephrology clinic. She denied subjective complaints. Kidney ultrasound was consistent with acute renal failure, with both kidneys grossly enlarged. Immunological analysis including cANCA, pANCA, antiDsDNA and ANA were negative. Serological tests for HIV, antiHCV and antiHBsAg were also negative. Although proteinuria was within normal range, a renal biopsy under renal ultrasound was performed. Histopathology was indicative of a diffuse large B-cell lymphoma with CD20 positivity and a high proliferative index Ki67 (80%). Due to these results the patient was referred to a hematology clinic for further evaluation and treatment.

Conclusions: Acute renal failure associated with diffuse large B-cell lymphoma is a rare occurrence. We present this case in order to showcase the unique challenges in diagnosing and managing patients with both conditions. Early recognition and prompt intervention are critical in improving patient outcomes, as renal failure can complicate the treatment of the lymphoma itself.

Keywords: acute renal failure, diffuse large b-cell lymphoma, labial tumor

MYOCARDIAL RUPTURE FOLLOWING ACUTE MYOCARDIAL INFARCTION

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Introduction: Contained myocardial rupture is an uncommon but serious complication of myocardial infarction, which is usually associated with a high mortality rate. It occurs when myocardial tissue disruption is temporarily contained by an overlying thrombus or pericardium, preventing immediate cardiac tamponade and catastrophic outcomes. Diagnosis is often made using echocardiography or cardiac MRI.

Case report: A 51-year-old male patient was admitted to the Cardiology Clinic due to chest pain. The ECG revealed acute ischemic changes. Coronary angiography was performed, and a stent was placed in the obtuse marginal artery (OM). The procedure was completed without complications. Following recurrent chest pain, echocardiography was performed, revealing pericardial effusion. Pericardiocentesis was conducted twice, evacuating 700 mL and 400 mL of fluid, respectively. After clinical improvement, the patient was discharged for home treatment. At the first control echocardiogram, a left ventricular wall outpouching was noted. Heart MRI confirmed the presence of a rupture. Surgical intervention was recommended; however, the patient declined the procedure. Nearly two years later, the patient remains in stable general condition.

Conclusion: Contained rupture of the left ventricular wall is an infrequent complication in the era of early PCI, but remains a life-threatening condition. Surgical repair remains the gold standard, though some cases may exhibit prolonged stability without immediate intervention. However, surgery may need to be postponed if there is significant tissue necrosis to improve the chances of successful repair. Mortality remains high without appropriate intervention.

Keywords: contained myocardial rupture, myocardial infarction, pericardial effusion

EOSINOPHILIC ESOPHAGITIS INDUCED BY SUBLINGUAL IMMUNOTHERAPY (SLIT): A RARE BUT EMERGING SIDE EFFECT

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Eosinophilic esophagitis (EoE) is a chronic, immune-mediated disease characterized by eosinophilic infiltration of the esophagus, leading to dysphagia and food impaction. Although sublingual immunotherapy (SLIT) is considered a safer alternative to subcutaneous immunotherapy (SCIT), recent reports suggest that SLIT may trigger EoE in genetically predisposed individuals. While rare, this complication underscores the importance of recognizing esophageal symptoms in patients undergoing SLIT.

Case Presentation: A 19-year-old male with severe allergic rhinitis started SLIT (Oralvac) for Dermatophagoides pteronyssinus and Dermatophagoides farinae. After seven months, he developed progressive dysphagia and retrosternal pain, despite no prior esophageal symptoms. An esophagogastroduodenoscopy (EGD) revealed mucosal edema, furrowing, and white plaques. Biopsy confirmed EoE with 29 eosinophils per high-power field. Blood tests showed eosinophilia (352 cells/µL) and elevated total IgE (334 kU/L). Given these findings, SLIT was discontinued, and the patient was treated with topical corticosteroids and dietary modifications, leading to significant symptom improvement.

Discussion: SLIT may induce EoE through prolonged allergen exposure on the oral and esophageal mucosa, triggering a Th2-driven inflammatory cascade. Key cytokines, such as IL-5 and IL-13, promote eosinophil recruitment and esophageal tissue remodeling. Genetic susceptibility, including CAPN14 mutations, may further predispose individuals to SLIT-induced EoE. While SLIT is generally well-tolerated, clinicians should remain vigilant when patients develop esophageal symptoms during therapy. Early recognition and intervention can prevent disease progression and complications.

Conclusion: Although rare, SLIT-induced EoE should be considered in patients presenting with dysphagia during treatment. Diagnosis requires endoscopy with biopsy, and management includes discontinuing SLIT and initiating anti-inflammatory therapy. Further research is needed to determine risk factors and develop screening strategies to enhance SLIT safety and efficacy.

Keywords: Eosinophilic Esophagitis, Sublingual Immunotherapy, Eosinophilia

FROM MALIGNANT DIAGNOSIS TO BENIGN OUTCOME: A COMPLEX CASE OF SOFT TISSUE TUMOR MISDIAGNOSIS

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Aim: This paper aims to illustrate the diagnostic challenges in differentiating between nodular fasciitis and malignant soft tissue tumors, emphasizing the critical importance of accurate diagnosis and its impact on treatment outcomes.

Introduction: Soft tissue masses present significant diagnostic challenges due to their varied nature, ranging from benign lesions to malignant tumors. Accurate diagnosis is crucial for appropriate treatment planning, yet distinguishing between conditions such as nodular fasciitis and malignant soft tissue tumors can be complex, often leading to diagnostic dilemmas that impact patient care.

Materials & Methods: The methodology of this paper includes a detailed clinical case presentation and a brief literature review.

Results: A 27-year-old male presented with a soft tissue mass initially suspected to be malignant fibrous histiocytoma based on imaging and histopathology, which led to surgical excision and a recommendation for radiotherapy. However, further biopsies sent to specialized centers in Greece and Turkey yielded conflicting diagnoses: Greece confirmed nodular fasciitis, while Turkey suggested either nodular fasciitis or low-grade myofibroblastic sarcoma. Both institutions recommended only surgical excision. The patient's follow-up, including ultrasound and CT scans, showed no recurrence, underscoring the challenges in distinguishing between benign and malignant soft tissue lesions.

Conclusions: This case highlights the significant challenges in accurately diagnosing soft tissue masses, particularly in differentiating between benign conditions like nodular fasciitis and malignant tumors such as malignant fibrous histiocytoma. The conflicting diagnostic results emphasize the need for thorough histopathological evaluation and the potential role of multidisciplinary consultation. Accurate diagnosis is essential not only for guiding treatment decisions but also for avoiding unnecessary aggressive therapies, thus impacting the overall management and prognosis of patients with soft tissue masses.

Keywords: nodular fascitis, biopsy, malignant histiocytoma, soft tissue

UNEXPECTED DIAGNOSIS OF CONCEALED WOLFF-PARKINSON-WHITE SYNDROME DURING RADIO-FREQUENCY ABLATION FOR SUSPECTED ATRIOVENTRICULAR NODAL REENTRANT TACHYCARDIA

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Radiofrequency ablation (RFA) is a minimally invasive procedure that uses radiofrequency energy to destroy abnormal electrical pathways in the heart, effectively treating arrhythmias, including supraventricular tachycardias and accessory pathway-mediated tachyarrhythmias, by restoring normal conduction without the need for long-term medication. Wolff-Parkinson-White (WPW) syndrome is associated with an accessory pathway (the bundle of Kent) which allows for preexcitation, visible as a delta wave on ECG. However, in concealed WPW syndrome, the accessory pathway conducts impulses only retrogradely, facilitating orthodromic atrioventricular reentrant tachycardia (AVRT) without visible preexcitation on the ECG.

A 25-year-old patient presented with recurrent episodes of palpitations, presyncope, and syncope, since the age of 14. The patient also reported intermittent hypotensive episodes and transient acrocyanosis of the chest during tachycardic episodes which increased in frequency. A single documented event in the emergency department revealed a narrow complex tachycardia at 220 bpm, leading to an initial diagnosis of atrioventricular nodal reentry tachycardia (AVNRT) and referral for slow pathway ablation.

During the electrophysiological study, programmed stimulation failed to reproduce typical AVNRT, and no slow pathway conduction was observed. Further mapping revealed a retrogradely conducting accessory pathway, confirming orthodromic AVRT due to a concealed accessory pathway (concealed WPW syndrome) rather than AVNRT. The absence of preexcitation and delta waves on prior ECGs delayed the recognition of the accessory pathway. Pharmacological agents used during the procedure included heparin due to left-sided chamber involvement, adenosine to slow conduction and differentiate tachyarrhythmia mechanisms, and atropine to facilitate tachycardia induction. The patient tolerated the procedure well and remained asymptomatic at follow-up.

This case underscores the importance of electrophysiological evaluation in SVT, particularly in distinguishing AVNRT from AVRT in the absence of preexcitation. Early recognition of concealed accessory pathways is critical for accurate diagnosis and optimal management.

Keywords: Concealed WPW syndrome, orthodromic AVRT, supraventricular tachycardia, radio-frequency ablation

LONG-TERM NUTRITION AND PALLIATIVE CARE MANAGEMENT IN TRAUMATIC BRAIN INJURY

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Introduction: Traumatic brain injury (TBI) can lead to significant morbidity and mortality. Severe cases often require long-term intensive care, enteral nutritional support, and palliative care. Complications include malnutrition, aspiration pneumonia, pressure ulcers, secondary infections. A multidisciplinary and personalized care plan is essential.

Objective: This case aims to emphasize the importance of multidisciplinary approach combined with adequate and balanced enteral nutrition, focusing on quality of life and neurological recovery.

Case: A 27-year-old male patient was admitted to the intensive care unit with intracranial hemorrhage and severe TBI after a traffic accident two months ago. After overcoming the critical phase, he was transferred to palliative care. The patient, who was bedridden, quadriplegic, disoriented-uncooperative, continued antiepileptic and intravenous antibiotic treatments for pneumonia in coordination with the relevant clinics. Due to the swallowing dysfunction, a percutaneous endoscopic gastrostomy (PEG) tube was placed by the Gastroenterology clinic for long-term enteral feeding.

The patient was 170 cm tall and weighed 55 kg when admitted. The basal calorie requirement was 1486 kcal and the actual requirement was 2675 kcal using the Harris-Benedict Formula. Protein intake was determined as 2 g/kg/day to increase muscle strength. Enteral nutrition was given as 2600 kcal/day by infusion for 16 hours. Passive neurological rehabilitation was started, and pressure sores were treated with Vacuum Assisted Closure.

After two months, he gained 10 kg, his muscle mass improved, and pressure sores healed. He became more responsive and started participating in rehabilitation. After caregiver training, he was discharged with instructions to continue PEG feeding, rehabilitation, and a six-month neurological follow-up.

Conclusion: Increasing patient weight and muscle mass strengthens muscles and helps heal pressure sores. Combining nutrition and exercise in palliative care also supports neurological recovery.

Keywords: Palliative care; Paranteral nutrition; Brain injuries, Traumatic; Gastrostomy

A MULTIDISCIPLINARY APPROACH IN MORBUS PAGET

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Introduction: In September 2021, a 26-year-old woman came for an examination at our health facility, due to complaints of frequent stools, with liquid-mushy content with blood in them, in a relatively good general health condition. History of comorbidities: No history of allergies, Not Vaccinated for COVID-19.

Objectives: Multidisciplinary approach and management for early detection and treatment of the disease.

Material and methods: Ultrasound, Laboratory, ECG, X-ray, CT contrast, MRI.

Results: An abdominal ultrasound was performed at the PHO "Ehomedika"- Kochani, and it was found Liver normal. Distended intestines, with vigorous peristalsis and quite liquid content intraluminally, with overflow. Right adrenal gland, dimensions 10x8mm. Left adrenal gland, dimensions 12x8 mm. Referred to a gastroenterohepatologist. In December 2021: PHI UC for Gastroenterohepatology Skopje: The patient has newly diagnosed UC (Rectosigmoiditis) HP verified for the initial form of ulcerative colitis. A stool culture was performed and was normal. Treatment was started, but due to an allergy to mesalazine and metronidazole, the drugs were excluded. She was referred to a dermatologist for examination and allergy tests to medications. Control with findings for a decision on treatment. The patient is currently on Decortin 35mg for three days, then 30mg for three days, then 25mg for three days, then 20mg for three days, 15mg for three days, then 10mg for three days, then 5mg for three days and then stopped. After completing corticotherapy, she should contact dermatovenereology for allergy tests. In January 2022 PHI Clinical Center for Dermatology–Skopje: The patient underwent a scratch test as follows: 1.Pantoprazole-neg. 2.pre+probiotic-neg. 3.Metronidazole 250mg neg. 4.Mesalazine-neg. In October 2022-PHI General Hospital-Veles Tabl Mesalazine 500 mg 3x2 plus probiotic. Plus sedative as needed Control after 6 months. In December 2024: PHI UC for Endocrinology-Skopje: A 29-year-old patient comes to this clinic for the first time with CT and MRI of the brain from other PHO. CT findings dated Nov.2023: An uneven wavy-cortical thickening of the calvaria is visible, right fronto-parietal. There is no altered structure of the diploe and there is no involvement of the tabula interna. There is no intracranial involvement either. The dimensions of the affected area are 10x7cm. The findings of the brain parenchyma are orderly. Conclusion: Based on its characteristics, the change most closely matches fibrous dysplasia, DDG. It could be M.Padget. Brain MRI: An orderly view of the brain parenchyma and the ventricular system was obtained. No focal brain changes are seen. No intracranial involvement. Coming in for evaluation. Lab results. FSH.2,41mIU/ml; LH.2,86mIU/ml; E2.153,96pg/ml; PRL.16,63ng/ml; PGN.9,86ng/ml; DHEAS.6,7µmol/L; TST.1,54nmol/L; CORT.426,73nmol/L; TSH.3,492mIU/ml; fT4.11,39pmol/L; INSULIN.6,85µIU/ml; Kalcitonin.<2,00pg/mL; STH.14,6ng/ml; SHBG.119,2nmol/L. Test for STH in OGTT–finding normal–referred to the Rheumatology and Orthopedics clinic–Dg. Morbus Paget is confirmed.

Conclusion: The importance of the internist approach for early detection and treatment of rare diseases.

Keywords: M. Peget, MRI, Internist.

AN ELDERLY PATIENT WITH COMORBIDITIES: MEDICATION MANAGEMENT ERRORS AND THE IMPORTANCE OF MULTIDISCIPLINARY INTERVENTION

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This case presents a 76-year-old female patient with a history of diabetes, hypertension, coronary artery disease, chronic obstructive pulmonary disease, and bypass surgery.
The patient, who lives alone with her spouse, faces significant challenges in medication management due to her limited literacy. She was unaware of her warfarin prescription and since her insulin therapy had run out, she used her son's insulin, irregularly. The home visit conducted by the healthcare team revealed a high INR of 5.36, high glucose level of 390mg/dL, and an HbA1c of 12.7%, which suggested uncontrolled medication use.
The patient's medical records show that she underwent bypass surgery in 2013 and had irregular follow-ups. Additionally, she has had multiple hospital visits and emergency department visits, including for an elbow fracture resulting from a fall. The patient’s uncontrolled medication use, combined with the lack of medical supervision and not having an appropriate caregiver, raised concerns about her long-term health.
Due to the high INR and irregular insulin use, the healthcare team intervened by discontinuing the warfarin and adjusting the treatment plan. Consultations with cardiology and internal medicine were planned, and the patient was referred to social services for ongoing support and home care needs, with a home visit scheduled as soon as possible. During the home visit, the patient was found to have tachycardia and was transferred to the hospital via emergency services. Her follow-up care is being continued by our team.
This case emphasizes the importance of proper medication management, especially in elderly patients with limited literacy, and highlights the necessity of home care support and continuous medical monitoring to achieve optimal health outcomes. Regular follow-up care, education on proper medication use, and a multidisciplinary approach involving healthcare professionals and social services are critical in managing patients with complex medical histories and limited self-management abilities.
Keywords: complex comorbidities, medication management, limited self-management abilities, multidicipliner approach

ATYPICAL PRESENTATION OF PROSTATE CANCER

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Introduction: In the diagnostic process of cancer patients, atypical presentations may occur prior to the manifestation of classical symptoms. This can complicate the evaluation of early diagnostic opportunities and may lead patients to seek care across multiple disciplines. Family medicine, with its holistic approach to managing low-prevalence diseases, serves as a critical step in facilitating early diagnosis.

Case Presentation: A 59-year-old male patient presented to a dentist with jaw pain and underwent dental treatment. However, due to the persistence of symptoms and the subsequent development of anosmia, he was referred to a family physician for further evaluation. During the physical examination in the family medicine practice, a firmness in the prostate gland was detected, prompting additional investigations. Laboratory evaluation revealed elevated alkaline phosphatase (ALP) and erythrocyte sedimentation rate (ESR). Consequently, prostate-specific antigen (PSA) levels, prostate ultrasonography (USG), and computed tomography (CT) scans were performed. Elevated PSA levels, increased prostate volume, and CT findings suggestive of mandibular and skull metastases led to a positron emission tomography (PET) scan to investigate the primary malignancy. The PET scan confirmed a diagnosis of prostate cancer, and the patient was referred to relevant specialties for treatment initiation. The patient is currently under follow-up for pain management and nutritional palliation.

Conclusion: In family medicine practice, careful evaluation of patients presenting with atypical symptoms during the management of low-prevalence diseases can play a critical role in early diagnosis and treatment. This case highlights the importance of a multidisciplinary approach and underscores the responsibility of family physicians in considering malignancies such as cancer in their differential diagnoses.

Keywords: Primary health care, cancer, symptom assessment

USE OF JAK INHIBITOR IN A PATIENT WITH CHRONIC GRAFT-VERSUS-HOST DISEASE

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Introduction: Graft-versus-Host disease (GvHD) has become one of the greatest challenges of the modern transplant hematology, resulting with 10-year survival rate of 42% in cases of acute GvHD, and only 10% of progressive chronic GvHD(cGvHD). Throughout the years, multiple lines of treatment have been proposed, including high-dose corticosteroids, Cyclosporine A(CyA), Mofetil-Mycophenolate(MMF), Anti-thymocyte globulin(ATG) and more, although with mixed success. Nevertheless, other approaches such as extracorporeal photopheresis and JAK-inhibitors including Ruxolitinib show promising results. In this case, we present our approach of treating a patient with cGvHD after undergoing alloPBSCT.

Case presentation: A 32-year-old male patient presented with anemia, malaise and history of frequent infections. Bone marrow biopsy was performed, consistent with acute lymphoblastic leukemia. Flowcytometric evaluation showed 85% infiltration with lymphoblasts. The patient was administered 2 cycles of chemotherapy according to HyperCVAD with reevaluation findings of persistent blast infiltration. The patient was then administered 2 cycles of high-dose FLAG-Ida chemotherapy, achieving complete remission. An alloPBSCT from HLA-compatible brother was performed with myeloablative conditioning and immunosuppression according to the Seattle protocol. During the follow-ups in the succeeding year, complete chimerism was noted. The patient presented with hypogammaglobulinemia, requiring multiple IVIG substitutions. 10 months post-PBSCT, hepatic and cutaneous cGvHD was noted which proved corticosteroid-refractory. The patient was started CyA therapy. The patient's general condition further worsened when CNS symptomatology appeared, with findings consistent with pneumococcal meningoencephalitis, progressing to coma, which required discontinuation of immunosuppression and an aggressive antibiotic treatment. Once the infection was resolved, immunosuppression with MMF was introduced, with little-to-no efficiency. Although the hepatic cGvHD was resolved with hepatoprotective treatment, the cutaneous lesions further progressed, causing scleroderma-like appearance of the skin with multiple ulcerations. The patient was then administered JAK-inhibitor Ruxolitinib, efficiently halting the progress of the GvHD. The patient currently still receives Ruxolitinib and hepatoprotective treatment, with ECP being considered next-in-line treatment.

Keywords: Chronic Graft-versus-Host disease, cGvHD, ALL, JAK inhibitors, Ruxolitinib

CARE AND MANAGEMENT OF HCM CARRIERS: A MARATHON RUNNER'S CASE

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Background: Hypertrophic cardiomyopathy (HCM) is a genetic condition characterized by an abnormal thickening of the left ventricular wall, typically exceeding 15mm in any myocardial segment. The prevalence of HCM in the adult population ranges from 0.05% to 0.2%.
Case description: A 28-year-old asymptomatic female marathon runner presented with a positive genetic test for hypertrophic cardiomyopathy. Cascade testing was performed due to a positive result from her father. The patient remains asymptomatic, with a normal electrocardiogram (ECG) and echocardiogram. Genetic analysis confirmed a heterozygous mutation in exon 23 of the MYH7 gene.
Clinical hypothesis: Hereditary factors and specific genetic mutations play a significant role in the development and outcome of hypertrophic cardiomyopathy. The clinical diagnosis of HCM in adult first-degree relatives of patients with a definitive diagnosis is based on the presence of left ventricular (LV) wall thickness ≥13 mm.
Diagnostic pathway: The preferred approach at asymptomatic carriers with positive genotype relies noninvasive imaging. Before deciding on exercise program, a thorough evaluation should be done, including an echocardiogram, ECG, and magnetic resonance (MRI) for assess the heart's structure and function.
Discussion: According to the present guidelines carries which are genotype-positive, phenotype-negative patients may participate in all competitive sports however, annual assessments are recommended to monitor for the development of phenotypic features of the disease.
Keywords: HCM, MYH7 gene

Pediatrics

INFANT WITH INCIDENTALLY DIAGNOSED NEHPROCALCINOSIS

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A 5-day-old boy was hospitalized at Ljubljana Children's Hospital due to dilated renal pelvis bilaterally. Family history and pregnancy were unremarkable, with delivery on term and normal birth measures. In the first five days he received ampicillin and gentamicin due to suspected infection. Renal function was normal, mild microhematuria and leukocyturia were present, urine culture was negative. Sonography showed mildly dilated calyces of the left kidney.

At 2 months, he was checked at the nephrology outpatient clinic. He was fully breastfed, weight gain and hydration were normal. Mother had no complaints regarding behavior and general wellbeing. Sonography was performed and nephrocalcinosis confirmed with no other deviations from normal. Blood tests showed high calcium value (3.03; normal 2.1 to 2.55 mmol/l), elevated 1.25 OH2 vitamin D (276; normal 40-155 pmol/L), low parathyroid hormone (7; normal 18-80 ng/L) and hypercalciuria (calcium/creatinine index 6.5). Complete blood count, electrolytes, nitrogen retentions, liver tests, thyroid hormones, 25 OH2 D3, acid-base balance and native urine were normal.

An insertion of three C nucleotides was present in the SLC34A1 gene in heterozygous form 1767_1768insACC, which causes threonine insertion (p.(Leu589:Asp590insThr). Nucleotide change has not yet been reported and is absent in healthy individuals. Changes in the SLC34A1 gene are known to be inherited in autosomal recessive manner and cause infantile hypercalcemia.

The clinical picture and laboratory findings strongly suggest a mild form of infantile hypercalcemia. As recommended, vitamin D and calcium intake were limited as advised, and gradual decline of calcium serum concentration and 1.25 OH2 vitamin D was observed, but remained above the normal limit at the last visit. The boy's development and weight gain are normal.

Keywords: hypercalcemia, nephrocalcinosis, infant

CT CHARACTERISTICS OF THORACIC EWING'S SARCOMA IN CHILDREN

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Ewing's sarcoma is a rare, highly malignant bone tumor that predominantly affects children and adolescents, with a higher incidence in males. While commonly arising in the long bones, this tumor can also involve the thoracic region, presenting unique diagnostic challenges. We present the case of a male 12-year-old child with a newly diagnosed thoracic Ewing's sarcoma, identified following a fall that led to a local injury in the right rib cage.

The patient underwent imaging, including a native CT series and contrast-enhanced CT scan, which revealed a large irregularly well-defined heterogeneous soft tissue mass adherent to the pleura with osteolytic destruction of the second right rib and extension into the surrounding intercostal spaces and the upper lobe with propagation to the middle lobe and partial involvement of the superior segment of the lower lobe of the right lung. Post-contrast series revealed highly vascular enhancing mass.

Further investigation using PET/CT showed a metabolically active lesion (SUVmax = 5.9) in the right thoracic wall and no other signs of distant metastasis. Mild FDG uptake in the anterior mediastinum suggested possible thymic activity, but no abnormal lymphadenopathy was noted. A transthoracic biopsy was performed under CT guidance and it was confirmed the diagnosis of Ewing's sarcoma.

The patient was referred to the pediatric oncology department for evaluation and initiation of treatment. Treatment strategies, including chemotherapy and surgical intervention, were discussed, with an emphasis on a multidisciplinary approach. The patient is monitored closely, with a focus on tumor response and any signs of metastasis.

Follow-up imaging will be essential for monitoring treatment response and identifying any potential metastatic spread. Early diagnosis and appropriate management are critical for improving survival outcomes, especially for patients with localized disease.

Keywords: Ewing's sarcoma, thoracic, pediatric, CT imaging, PET/CT, metastasis

A RARE CASE: HERPES ZOSTER IN ADOLESCENCE

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Introduction: Herpes Zoster (HZ) results from the reactivation of the varicella-zoster virus (VZV), which remains latent in the dorsal root ganglia after primary varicella infection. It manifests as localized erythematous vesicular eruptions. Although more common in adults, HZ also occurs in children and adolescents, particularly those with prior chickenpox or immunological conditions (1-3). HZ occurs in approximately 2% of individuals exposed to VZV in utero and remains a risk factor for postnatal infection (4). The annual incidence after chickenpox is 20–63/100,000, dropping to 14/100,000 in vaccinated individuals. Risk factors include immune deficiency, immunosuppressive treatment, and advanced age, while it is rare in those under 10. In children, it affects the cervical and sacral regions, whereas in adults, it involves the lower thoracic, upper lumbar, and trigeminal nerves (5). This report presents a rare adolescent HZ case.

Case Presentation: A 14-year-old male with no chronic illness and up-to-date vaccinations presented with painful lesions. The unilateral, painful, vesicular rash on the left thoracic region was diagnosed as HZ. Immunodeficiency, trauma, and surgery were ruled out, and serological tests, including anti-HIV, were normal. The patient received antiviral therapy along with vitamin B12 as an adjunctive measure.

Discussion: HZ can occur in healthy children, usually with a mild course. Complications are rare. Further studies are required to elucidate the potantial role of stress in HZ pathogenesis. This case is notable due to the absence of risk factors. The HZ vaccine is vital in reducing severity and complications, particularly in the elderly and immunocompromised, benefiting public health.

Keywords: Herpes Zoster, Adolescence, Rash

CONGENITAL GRANULAR CELL EPULIS (CGCE) IN FEMALE NEWBORN.

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Congenital granular cell epulis (CGCE) is a rare benign soft tissue lesion
found in newborns, that usually originates from the neonatal gingiva and can lead to difficulty in breathing and feeding upon birth. It has predominance for females with an 8:1 ratio in relation to males and is exclusively encountered in the oral cavity.
We present a rare case of a full- term female newborn from the well-controlled pregnancy, in which, within the first hours after birth, papilomatous growths were detected on the tongue- one larger growth (with diameter of 1 cm) and several smaller ones around it with diameters ranging from 0.4 to 0.6sm. Additionally, smaller growth is observed on the lower jaw.
The patient, a female newborn, did not experience any serious difficulty regarding breathing or deglutition.
Complete surgical excision was the treatment of choice in this case, conducted under general anesthetic on the second day of life. The peri- and postoperative outcomes were satisfactory, with normal feeding established on the same day.
Histological and immunohistochemical analysis confirmed the diagnosis of Congenital granular cell epulis.
The patient showed postoperative healing and excellent health at both the 6-day recall appointment and the 6-month follow-up.
Keywords: Newborn, congenital granular cell epulis, multidisciplinary management.

THE IMPORTANCE OF BLOOD PRESSURE MEASUREMENT IN CHILDREN WHO APPLY TO THE FAMILY HEALTH CENTER WITH HEADACHE COMPLAINTS: SECONDARY HYPERTENSION CASE REPORT

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Introduction: Hypertension is a major public health problem due to its high prevalence and because it is the most common risk factor for cardiovascular death. Although the most common form is essential hypertension, secondary hypertension has a significant rate with a prevalence ranging from 5-15%. Despite this low rate, secondary hypertension is frequently observed in children.

Case: A 12-year-old male patient applied to the family health centre with a complaint of headache. The patient, who stated that he had been having widespread headaches for about 2 weeks, woke up this morning with pain in the nape of his neck for the first time. Thereupon, he consulted his family doctor.

The patient has a history of unhealthy diet and had high cholesterol and obesity 3 years ago according to his medical history. He also has a family history of hypertension, hypothyroidism and obesity. The patient's physical examination showed no pathological findings and his BMI was 26.6 kg/m2.

Outpatient blood pressure measurements were 159/91 mmHg. The patient was referred to a secondary healthcare institution with the preliminary diagnosis of stage 2 secondary hypertension.

Further investigations revealed left ventricular hypertrophy and the diagnosis of secondary hypertension was confirmed. The treatment was started with 2.5 mg of amlodipine and then the dose was gradually increased. At the same time, prophylactic 300 mg allopurinol was started for renoprotection. The patient was given recommendations for lifestyle changes.

Discussion: In the literature, amlodipine treatment choice has been shown to be safe in cases of secondary hypertension detected in children. In addition to drug treatment, recommending lifestyle changes and investigating family history are important in these patients.

Conclusion: Hypertension should definitely come to mind in children presenting with headache complaints and blood pressure measurement should not be neglected.

Keywords: Secondary Hypertension, Headache, Child

BACTERIAL COINFECTION IN A CHILD WITH RSV PNEUMONIA

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Introduction

Respiratory syncytial virus (RSV) is a common pathogen in young children causing severe illness in infants. During RSV infection, respiratory bacteria such as Hemophilus influenzae and Streptococcus pneumoniae are frequently detected, which are associated with a longer and more severe course of the disease.

Aim

The aim is to present a case of RSV pneumonia with co-infection with Streptococcus pneumoniae and Hemophilus influenzae as a risk factor for a longer and more severe course of the disease.

Methods: Laboratory, PCR analyses were performed to prove the bacterial co-infection, as well as imaging studies.

Case presentation

History: The disease began 3 days before admission to the hospital with fever cough and wheeze.

Physical exam: On admission, the patient was febrile, pale, auscultatory with vesicular breathing with wheeze and rhonchi.

Diagnostic: Laboratory, PCR analyses were performed to prove the bacterial co-infection, as well as imaging studies that are part of the protocol in children with pneumonia.

Results: The presence of RSV pneumonia and coinfection with both bacteria was proven by PCR testing and X-ray.

Treatment: The patient was treated with symptomatic, supportive treatment and antibiotics for ten days

Prognosis: The child had a good outcome of the disease despite the more severe course, the disease ended with complete resolution of the auscultatory finding and after treatment was discharged from the hospital

Conclusion: Patients with RSV pneumonia and bacterial coinfection have a longer and more severe course of the disease and often require hospitalization.

Key words: RSV pneumonia, bacterial coinfection, children

PRESENSE OF TWO INFLUENZAE VIRUSES IN PRESCHOOL BOY

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Introduction

Influenza (flu) is a very contagious disease and is the most common acute respiratory disease between children. Influenza is often a self-limited disease among children but sometimes complications occur that require hospital treatment.

Aim

The aim is to present a rare case of infection with two influenza viruses simultaneously in a preschool child.

Methods

Laboratory and PCR tests were performed to confirm the presence of both viruses.

Case presentation

History: The illness began 5 days before admission to the hospital with a high fever and laryngotracheal cough.

Physical exam: On admission the patient was febrile, pale and auscultatory with vesicular breathing accompanied by wheeze and rhonchi

Diagnostic: Laboratory tests, rapid tests were performed to prove the etiology as well as imaging analyses as part of the protocol in a patient with pneumonia.

Results: It was noted moderate elevation of inflammatory markers, and presence of both viruses of influenza A and B at the same time in the patient.

Moderately elevated inflammatory markers and the presence of both viruses simultaneously in the patient were observed.

Treatment: The patient was treated with symptomatic, supportive and antibiotic treatment.

Prognosis: The patient had good prognosis and complete resolution of the auscultatory finding, and after the treatment was discharged from hospital.

Conclusion Although rare, cases of the simultaneous presence of both influenza viruses have been observed, accompanied by very high fever, weakness, and dehydration requiring hospitalization.

Key words: Infleunza A, Influenza B, laryngotragheobronchitis

EARLY DETECTION AND MULTIDISCIPLINARY APPROACH IN A CHILD WITH DEVELOPMENTAL DELAY

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Introduction: Developmental disorders represent a group of conditions in childhood that involve dysfunctions in attention, perception, memory, speech, social interaction, and difficulties in behavior.
Objective: This is a case report of a 6-year-old child with developmental disorders. The child is the second child from the third pregnancy of the mother, with a risk factor—born via cesarean section at 31 weeks of gestation, weighing 1700 grams, placed in an incubator with oxygen support, monitored, stabilized, and in good general condition, discharged home with weight gain. After discharge, the child was regularly monitored by a pediatrician in the Preventive Health Care Service.
Nutrition was carried out with adapted milk formula (AMF) with good tolerance and weight gain. Neurodevelopmental assessments at 3, 6, and 9 months of age, conducted due to risk factors, showed small deviations in psychomotor development. A specialist in defectology (special education) was involved in providing exercises to stimulate motor achievements appropriate for the child's age.
At the age of 2 years, expressive speech was at the level of 3-5 meaningful words, the child partially understood simple verbal commands, attention was deficient, and there were also issues with cognition and fine motor skills. A speech therapist was included in the treatment with 2 hours of therapy per week, and work was also done with a psychologist. Defectology treatments were continuously carried out twice a week.
As a result of continuous team effort, developmental disorders between the ages of 5 and 6 years showed significant improvement in expressive and receptive speech, communication skills, motor skills, cognitive, socio-emotional development, and self-care with the help of parents.
Conclusion: Early diagnosis and a multidisciplinary approach are crucial in achieving the maximum biological potential for a child with developmental delays.
Keywords: developmental disorders, multidisciplinary approach, early detection

HYDROCEPHALUS IN AN INFANT

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Introduction: Hydrocephalus represents a heterogeneous group of conditions that occur as a result of disturbed circulation and absorption of cerebrospinal fluid, manifesting with typical clinical signs and symptoms.
Case presentation: We present a case of a female infant, 1 month old, born at term, from a regularly monitored pregnancy, delivered by Cesarean section, with an APGAR score of 9/9. Postnatally, the infant had a brief episode of fever and mildly elevated inflammatory markers (CRP), which led to the initiation of dual antibiotic therapy. After discharge, several preventive follow-up visits were conducted. During the physical examination, a systolic murmur of 2/6 was heard, the head circumference (HC) was 3x3 cm at the level of the calvaria, the baby showed weight gain, and at the last follow-up, the mother reported increased sleepiness in the infant. Advice was given to continue monitoring and further investigations. In the next two weeks, following the last check-up, the infant began vomiting, slept for extended periods, and the mother noticed an increase in head size. The infant was taken to a private hospital where a cardiology and neurology examination was performed. Due to the clinical signs indicating hydrocephalus – hydrocephalic skull appearance, head circumference of 42 cm, bulging fontanelle, and separated sutures, an ultrasound of the CNS was performed, revealing marked dilation of the ventricular system. A CT scan of the brain showed diffuse dilation of the lateral ventricles. Following the imaging and examinations, an urgent surgical intervention was performed with the placement of a VP shunt and ultra-small valve. The postoperative course was uneventful, with reduced head volume and fontanelles, and a normal neurological status.
Conclusion: Regular preventive follow-up visits and timely diagnosis are crucial to prevent disease progression and the appearance of more serious consequences in the child's psychomotor development.
Keywords: Hydrocephalus, infant, investigations

IMPROVEMENT OF A PATIENT WITH SLEEP COMPLAINTS WHO DID NOT BENEFIT FROM PSYCHIATRIC TREATMENT WITH ANTIHYPERTENSIVE TREATMENT

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INTRODUCTION: Beta-blockers can alleviate anxiety and panic attack symptoms by reducing heart rate Angiotensin II receptor antagonists may have positive effects on depression and anxiety. Calcium channel blockers may be effective as mood stabilizers in bipolar disorder.
CASE: A 55-year-old female patient (A.B.) applied to the Çiğli Training and Research Hospital Psychiatry outpatient clinic on January 15, 2025, with complaints of nighttime breathing difficulties and a feeling of distress. The patient was prescribed quetiapine for sleep disorder; however, she did not benefit from the treatment, and her nighttime complaints persisted. The patient had a history of hypothyroidism and type 2 diabetes mellitus. Physical examination findings were normal.
FINDINGS: Quetiapine was initiated for the patient in November 2024. Although she used her medication regularly, her nighttime anxiety symptoms did not improve. In the office measurement the blood pressure was 140/85 mmHg. The patient was diagnosed with hypertension, and nebivolol 5 mg tablet was prescribed. A five day record of morning and evening blood pressures obtained from the patient. At revisit, her blood pressure at home was 123/75 mmHg, indicating that her hypertension was well regulated. Additionally, her sleep disturbances had resolved. According to literature, the patient's condition might be more related to hypertension rather than a psychiatric disorder. After psychiatric consultation, quetiapine was discontinued, and the patient continued treatment only with nebivolol.
CONCLUSION: The failure to consider hypertension, especially in a patient with type 2 diabetes mellitus, was attributed to an incomplete anamnesis taken during the psychiatric visit. At night, blood pressure generally drops by 10% (dipper), whereas in non-dippers the decrease is less. However, in chronic conditions such as type 2 diabetes mellitus, a reverse-dipper pattern (paradoxical increase in blood pressure) may be observed. Nebivolol reduces anxiety by decreasing heart rate, lowering blood pressure, and suppressing adrenaline and norepinephrine.
Keywords: Hypertension, betablocker, anxiety

VAGAL STIMULATION AND POEM IN SECONDARY PEDIATRIC INTESTINAL PSEUDO-OBSTRUCTION AND ACHALASIA

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A 15-year-old female patient was admitted to the Pediatric Intestinal Failure unit at İzmir City Hospital on 09.09.2024 due to increased vomiting and reduced oral intake. The patient has a medical history of benign ganglioneuroma surgery in 2014, achalasia (with a history of recurrent balloon dilation), gastrointestinal hypomotility, and epilepsy. In 2021, after a recurrence of abdominal pain, decreased bowel movements, loss of appetite, and postprandial distention, a biopsy performed during surgery resulted in a necrotic mass near the lower esophagus. A diagnostic laparotomy was performed in July 2021 due to these complaints, and bowel passage was established. Postoperatively, feeding was continued via a nasogastric tube, but distention persisted, and the patient experienced approximately 40% weight loss. Then, an ileostomy was performed, and a PEG was placed. Despite PEG feding, distention continued. Following 3 months of monitoring in the Intestinal Failure unit, the patient gained weight after receiving TPN support, gastrostomy, and pharmacological treatments. Despite the current treatment, swallowing dysfunction persisted. During the patient's follow-up, swallowing dysfunction investigations revealed no abnormal findings related to autonomic sympathetic pathology. This clinical picture was considered a potential complication due to the proximity of the excised mass to the vagus nerve during the benign ganglioneuroma surgery. Consequently, vagus nerve stimulation (VNS) was initiated. After two weeks of treatment, a significant increase in bowel peristalsis was observed. Esophageal manometry revealed findings consistent with type 2 achalasia. The patient subsequently underwent balloon dilation. During follow-up, swallowing function remained unaffected for approximately six months, with weight gain and a reduction in obstruction attacks. However after a relapse, decision was made to perform Peroral Endoscopic Myotomy (POEM). Following POEM, the patient gradually resumed solid and liquid food intake. The patient was discharged home with instructions for care of the PEG and ostomy and intermittent TPN every other day.

Keywords: Achalasia, POEM, VNS, PIPO

SEVERE ASTHMA EXACERBATION IN A CHILD WITH UNCONTROLLED ASTHMA

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We report the case of a first-born male child with an uneventful perinatal, neonatal, and postnatal course. Since three months of age, he has experienced recurrent bronchial obstructions, requiring multiple hospitalizations at Tetovo General Hospital. At four months old, he developed an urticarial rash following cow's milk ingestion and Quincke's edema after consuming eggs. At two years old (June 2013), he was hospitalized at the Kozle Institute for Lung Diseases and Tuberculosis (IBZ) due to severe bronchopneumonia with concomitant bronchial obstruction, leading to the initiation of prophylactic inhaled corticosteroids (ICS) (Fluticasone propionate). His allergological evaluation revealed atopic dermatitis, food allergy (egg ++), and sensitization to inhalant allergens (Dermatophagoides pteronyssinus, tree pollen, grass pollen), with elevated total IgE (565 IU/mL). Despite multiple hospital admissions, the patient demonstrated poor adherence to preventive inhalation therapy. He was hospitalized four times in our clinic in severe general condition, each requiring oxygen support. During his most recent hospitalization, he presented in critical condition, necessitating intensive care unit (ICU) admission, mechanical ventilation, and intubation. Following stabilization, he was transferred to the general ward for continued therapy. However, despite medical recommendations, his parents requested early discharge against medical advice. A review of the patient's atopic status is planned, along with the initiation of preventive therapy using topical Budesonide/Formoterol (160/4.5 mcg, 1+1 puffs). Additionally, patient education on the correct inhalation technique will be implemented.
Keywords: Asthma exacerbation, inhaled corticosteroid, allergens.

A CASE OF CAT SCRATCH DISEASE PRESENTING WITH LYMPHADENOPATHY AND ERYTHEMA NODOSUM

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A 15-year-old male patient noticed a painless swelling behind his left ear 3.5 weeks ago, which gradually grew and increased in number. Five days prior, he developed a fever up to 40°C, followed by painful, red swellings on his legs. He was evaluated at an outpatient clinic, diagnosed with erythema nodosum, and referred to our hospital with suspected acute rheumatic fever. He was admitted to the pediatric ward for further evaluation and treatment.

On physical examination, four mobile, painless lymph nodes were palpated behind the left ear and neck, along with tender, red skin lesions on the lower extremities. Ultrasound revealed enlarged, edematous lymph nodes near the left parotid gland, the largest measuring 14x14 mm. Further investigations ruled out tuberculosis(Imaging and quantiferon test negative), sarcoidosis, viral infections(HAV, HBV, HCV, HIV, CMV, ParvovirusB19, Toxoplasma, Rubella) and brucellosis (Rose Bengal test negative). Bartonella henselae and Francisella tularensis were considered in the differential diagnosis, and serological tests were performed. The patient was started on IV azithromycin, clindamycin (30 mg/kg/day), and cefotaxime (150 mg/kg/day). His fever subsided within two days, and after two day hospital staying he was discharged with oral antibiotics (Azithromycin (500 mg once daily for 2 days + Clindamycin 600 mg three times daily for 9 days) and scheduled for a follow-up in one week.

At one week follow-up, Tularemia agglutination test was negative and Bartonella henselae IgM and IgG were positive, confirming the diagnosis of cat scratch disease (CSD). His lymphadenopathy had regressed, and his clinical condition showed significantly improved.

Cat scratch disease could present with fever, lymph node swelling, and skin lesions, sometimes mimicking other conditions. Early diagnosis and appropriate antibiotic treatment lead to full recovery. This case highlights the importance of considering Bartonella infection in pediatric patients present with fever, lymphadenopathy, and skin findings.

Keywords: Bartonella henselae, cat scratch disease, lymphadenopathy, erythema nodosum

HYPOTHYREOSIS CONGENITALIS. DIABETES MELLITUS NEONATALIS SUSP.

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Case Presentation: Male prematurus, born at 34+5 gestational weeks, by C - section, with LBW, borderline SGA. Prenatal risks from the mother: Hodgkin Lymphoma, St post Th cum Optdivo (Nivolumab) up to 27 weeks of pregnancy. The newborn was admitted to the NICU and was continued with stabilization according to protocols for premature newborns with prenatal risks mentioned above. Initial investigations excluded connatal infections and other comorbidities. The ninth postnatal day due to drowsiness, subicterus, discrete loss of weight, vomitus on one occasion, extended laboratory analyses were performed with findings of hyperglycemia up to 36.79 mmol/L. The newborn was put on intravenous therapy with Insulin (bolus and continuous administration). A multidisciplinary approach managing the condition was carried out by pediatric specialists: endocrinologist, geneticist, gastroenterologist, cardiologist, nephrologist.
Results/Findings: metabolic screening TSH= 272mU/L, Cortisol = 12.65ug/dl, glycemia= 36.79 mmol/L, genetic studies (DM neonatalis - KCNJ11/ ABCC8 mutation; Diabetes neonatalis transitoria- 6q24) in progress.
Dg. Hypothyreosis congenitalis. Diabetes mellitus neonatalis susp.
Th: Euthyrox (Levothiroxin Natruim), Insulin iv, doses titrated according to results obtained. The newborn had good response to oral therapy with Euthyrox (Levothiroxin Natruim) `a 37.5 mkg (TSH = 25.5uIU/ml), Cortisol levels stayed within reference, glycemia varied between 2 - 36.79 mmol/L, thus intravenous therapy with Insulin 0.05 IU/ kg/h remained/continued.
After 26 days at the NICU, the patient was transferred to the University Clinic of Children's Diseases for continued investigations, tests and treatment.
Keywords: diabetes mellitus neonatalis, hyperglikemia, Insulin, hypothyreosis congenitalis, TSH, neonatus, prematurus, NICU

ADENOCARCINOMA VENTRICULI IN CHILDREN

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Background: Adenocarcinoma is a malignant tumor of the stomach. It is an extremely rare malignancy in children, with an incidence of only 0.05% of all childhood cancers, with often late diagnosis and poor prognosis.
Case report: We present a case of an 11-year-old girl hospitalized in the gastroenterohepatology department due to abdominal pain lasting two weeks, intensified in the last four days, accompanied by vomiting and weight loss of 7 kg in the last month. Relatively healthy child with one hospitalization due to Salmonella enteritis, with family history - grandmother who died of pancreatic cancer. On admission, she gave the impression of a mildly ill child, with pale skin, abdominal pain in the epigastrium and right hypochondrium on palpation and hepatomegaly (2 cm below the right costal arch). Laboratory tests were within normal ranges, except for significantly increased tumor markers (AFP: 68.58 ng/ml, NSE: 65.8 ng/ml). Imaging - ultrasound, CT abdomen with contrast, gastroesophagealduodenography, MRI abdomen, showed an enlarged liver with numerous metastatic changes, which raised suspicion of malignant neoplasma, primary located in the distal part of the esophagus and gastric cardia. Esophagogastroduodenoscopy with biopsy was performed, with pathohistological finding of adenocarcinoma (G3). PET scan confirmed disseminated metabolic active disease with secondary deposits in the liver, pancreas, multiple reactive lymph nodes, right scapula. The patient was placed on parenteral hydration . After a detailed evaluation, the tumor was evaluated as inoperable by surgeons, and the hemato-oncologist suggested palliative therapy. During hospitalization, the condition was stable, without pain and vomiting. At the initiative of the family, the treatment continued in a foreign center.
Conclusion: Although rare, gastric adenocarcinoma in children requires caution, especially in patients with a genetic predisposition. Early diagnosis and treatment are crucial for a better outcome of the disease.
Keywords: Adenocarcinoma ventriculi, children, metastatic changes, abdominal pain

MANY FACIES OF INFLUENZA B INFECTION - INFANT WITH HYPERNATREMIA DEHYDRATION AND ACIDOSIS

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Introduction: Dehydration with acidosis and hypernatremia in pediatric patients is not so common, especially not during active Influenza B infection. Fluid, electrolyte balance and acids-based homeostasis are essential components of normal cellular and organ functioning. Hypernatremia is a very serious medical condition and usually is followed by alkalosis, but in our case, it was followed by acidosis which is verry rare in the literature.

Methods: Influenza B infection was diagnosed in our patient with rapid chromatographic immunoassay for the qualitive detection of Influenza A antigens in nasal swab. The clinical presentation beyond bronchiolitis was followed with diarrhea. Laboratory investigations were made to follow the acid-based status of our patient and to give directions for treatment.

Results: Our patient was diagnosed moderate hypernatremia dehydration with acidosis. Early treatment and management of the rehydration, adjusting the rehydration fluids according to the condition and slow decrease of natrium blood levels resulted in successful correction of the acid-based homeostasis and no neurological sequels in our patient.

Conclusion: Hypernatremia with acidosis is a verry rare and serious condition in infants. There for prompt diagnosis and early treatment are crucial to avoid serious neurological complications.

Keywords: Acidosis, hypernatremia, infant, Influenza B

CONCURRENT INFLUENZA A AND MUMP INFECTION IN A TODDLER WITH ACUTE PAROTITIS

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Introduction: Our aim is to present a verry rare case of Influenza A co-infection in a toddler during an active mump infection. There are many publications relating to the appearance of acute lymphadenitis during Influenza infection, but there isn't anything about influenza superinfection during active mumps infection.

Methods: Profound laboratory and microbiological investigations were performed for diagnosing the etiology of the unilateral parotid lymphadenitis in our patient. The patient was treated with per oral oseltamivir and local anti-inflammatory therapy.

Results: Highly elevated levels of alpha-amylase in serum and urine beyond the specific clinical presentation confirmed the diagnosis of mumps in our patient. Influenza A co-infection was confirmed with rapid chromatographic immunoassay for the qualitive detection of Influenza A antigens in nasal swab on the third day from appearance of mumps lymphadenitis.

Conclusion: Clinical evolution, laboratory and microbiological investigations confirmed that mumps were the primary infection and Influenza A was the secondary co-infection in our patient. We couldn't find any known publications about influenza superinfection during active mumps infection, therefore it makes our patient the only one so far with this kind of clinical presentation.

Keywords: Mumps, toddler, Influenza A, co-infection

Imaging Medicine

INCIDENTALLY DETECTED AVASCULAR NECROSIS ON 18F-FDG PET/CT IN A LYMPHOMA PATIENT

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Introduction: 18F-FDG PET/CT scan is essential in lymphoma management, but its lack of tumor specificity can lead to diagnostic challenges. Prolonged corticosteroid use during chemotherapy is a known risk factor for avascular necrosis, which may present as incidental 18F-FDG uptake mimicking malignancy. This report highlights femoral head osteonecrosis incidentally detected on PET/CT in a lymphoma patient undergoing steroid-containing chemotherapy. It emphasizes the need for earlier detection of osteonecrosis and its differentiation from disease recurrence.

Case report: A 33-year-old patient diagnosed with follicular lymphoma underwent an 18F-FDG PET/CT scan for disease staging. The scan revealed solely a hypermetabolic mass in the anterior mediastinum. Two years later, after completing 8 cycles of immunochemotherapy, radiation therapy targeting the mediastinal mass, and maintenance therapy with Obinutuzumab, the patient began experiencing pain in the right hip, particularly in a standing position. A follow-up 18F-FDG PET/CT scan demonstrated complete resolution of the previously detected mediastinal hypermetabolic mass. However, a diffuse mildly increased 18F-FDG uptake in the femoral head, femoral neck, and hip joint was shown, which was confirmed as avascular necrosis on MRI The patient was referred for surgical treatment of the avascular necrosis.

Conclusion: This case emphasizes the need to differentiate incidental 18F-FDG PET/CT findings in lymphoma patients, especially recognizing those mimicking malignancy for further appropriate management. Prolonged corticosteroid use can cause osteonecrosis, and a nuclear medicine physician needs to think of avascular necrosis of the hip when a diffuse increased 18F-FDG uptake is shown in the femoral head on the PET/CT scan in some cases.

Keywords: avascular necrosis, corticosteroids, 18F-FDG PET/CT, chemotherapy, lymphoma

VARIED PRESENTATIONS OF CT-SCANS OF INFLAMED AND PERFORATED APPENDIX

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A perforated appendix is a potential complication of acute appendicitis. If appendicitis goes untreated, the appendiceal wall may undergo necrosis (gangrene), eventually leading to a localized rupture. The rate of appendix perforation ranges from 16% to 40%, with a higher incidence in both younger individuals and those over 50 years old. Perforation can result from a delayed or atypical presentation of appendicitis, delays in diagnosis, postponed surgery, and age-related physiological changes. One of the best tools for detection of an inflamed appendix is multiphase CT of Abdomen and Pelvis.

Introduction We present two cases involving 27- and 24-year-old female patients who experienced similar symptoms and were diagnosed with the same condition. However, the CT findings varied slightly, reflecting differences in the patients' initial responses and conditions. In the first case, there were encapsulated collections of inflamed material in the ileocecal region, most likely abscesses resulting from a perforation. These abscesses could not be clearly separated from the surrounding pericecal fat, and there was a small amount of free fluid in the mesentery, along with enlarged lymph nodes and signs of intestinal obstruction. In the second case, there was obscuration in the adipose tissue, with an edematous and inflamed appendix, along with a small amount of thicker free fluid.

Imaging Findings: There was increased fat density surrounding the appendix, along with an enlarged appendix in the early stages of inflammation. In the case of a perforated appendix, CT imaging revealed signs of a thin, irregular wall, along with two abscesses and two appendicoliths. This was accompanied by significant inflammation, including fat stranding and swelling.

Conclusion: Timely recognition of such anomalies is crucial, highlighting the importance of interdisciplinary collaboration and potential surgical interventions for optimal patient care.

Keywords: Appendix perforated, Acute abdomen, multiphase CT of Abdomen.

INCIDENTAL FINDING OF A GIANT HEPATIC HEMANGIOMA IN A PATIENT WITH DIAGNOSED CROHN'S DISEASE

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Hepatic hemangiomas are the most common benign liver tumors, often discovered incidentally during imaging performed for unrelated conditions. Their diagnosis relies on characteristic imaging findings, primarily through ultrasound (US) and contrast-enhanced computed tomography (CT) or magnetic resonance imaging (MRI). This case highlights an incidental detection of a giant hepatic hemangioma in a female patient diagnosed with Crohn's disease, emphasizing the importance of imaging in differentiating benign from malignant hepatic lesions.A female patient with a known diagnosis of Crohn's disease presented with abdominal pain, prompting an ultrasound examination of the abdomen. US revealed a well-defined, heterogeneous lesion in segment 7/8 of the right hepatic lobe, measuring 9 × 8 cm. The lesion displaced the portal vein without signs of infiltration. The gallbladder, biliary tree, pancreas, and spleen appeared normal, and no free fluid was detected in the abdomen. Given the findings, a contrast-enhanced CT scan was indicated for further evaluation.Multiphase CT imaging confirmed a heterodense lesion in hepatic segments 8 and 5/6, measuring 94 × 78 mm. The lesion exhibited characteristic peripheral centripetal nodular enhancement, consistent with a giant hepatic hemangioma. It caused slight displacement of the portal vein without evident filling defects. Additional findings included mural thickening and contrast enhancement of the distal ileum, with mesenteric lymphadenopathy, supporting the primary Crohn's disease diagnosis. Minimal free fluid was observed in the pelvic cavity.This case underscores the importance of multimodal imaging in the characterization of hepatic lesions, aiding in the accurate differentiation of benign and malignant pathology, particularly in patients with underlying gastrointestinal diseases. Given the frequent use of imaging in Crohn's disease management, radiologists should be aware of incidental hepatic lesions that may influence clinical decisions. Follow-up imaging and interdisciplinary collaboration remain crucial for optimal patient care.

CT IMAGING OF LIVER CYSTIC ECHINOCOCCOSIS

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Liver cystic echinococcosis (CE) is a zoonotic disease caused by the accidental infection of humans with the eggs of the tapeworm Echinococcus granulosus. Two-thirds of all cases present with hepatic involvement.

We report a case of hepatic hydatid cyst in a 19-year-old male patient who presented to the Emergency Room of Mother Teresa Clinical Hospital in Skopje with accidental trauma and non-specific abdominal pain in the left hypochondrium. A CT scan with intravenous contrast (IVC) was performed, revealing a CE diagnosis. The cyst, measuring 7.5 x 6 cm, was located in the third segment of the left lobe of the liver and showed signs of a ruptured internal wall. The detached proliferative membrane exhibited the characteristic "water lily" sign, with no calcifications noted. Additionally, ascitic fluid was observed around the liver and in the pelvic cavity. The patient underwent immediate surgery. A follow-up CT scan one year later showed normal results, but the patient continues to have elevated bilirubin levels in the blood and is being monitored and treated with oral medication at the Clinic of Gastroenterology and Hepatology, with the condition remaining stable for the past 3 years.

CONCLUSIONS: Patients with hepatic cystic disease are asymptomatic. It is accidental findings on CT images. Sugical treatman remains the “gold standard” in theory . Laboratory examinations serology tests are relevant for liver functions.

Keywords: Liver hydatid cyst , surgical treatment , Echinococcus granulosus.

THE SIGNIFICANCE OF A MULTIPHASE CT SCAN IN A CASE OF NON-TRAUMATIC ACUTE ABDOMINAL PAIN AND CRAMPING EPISODES

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Suitability of CT scans for individuals with abdominal pain is crucial in detecting the cause in the patients with sudden non-traumatic acute abdominal pain.

Intussusception is life-threatening condition that requires immediate medical attention. It occurs when a portion of the intestine folds into an adjacent section of the intestine, leading to a blockage. This condition is one of the most common abdominal emergencies.

This case underscores the importance of recognizing such anomalies for timely intervention and optimal patient care.

Introduction: We present the case of a 41-year-old male patient who presented with sudden sharp abdominal pain accompanied by nausea, vomiting, and diarrhea. Laboratory tests revealed elevated inflammatory markers, including leucocytosis (12.6), high alkaline phosphatase levels (362 U/L, reference range: 36-126 U/L), and elevated glucose levels. Later a multiphase CT scan was performed, which showed distension of the ascending, transverse colon, and part of the descending colon associated with mesenteric malrotation. Notably, in the transition toward the sigmoid colon, circumferential thickening and reduced lumen were observed. Additionally, formed aeroliquid levels were noted, characteristic CT picture of mechanic ileus.

Imaging findings: Twisting of the blood vessels, mesenteric fat tissue, as well as a portion of the sigmoid colon. Distension of the dominantly right hemicolon with transition toward sigmoid colon with circumferential thickening and reduced lumen were observed. The characteristic whirlpool sign has been observed.

Conclusion: Timely recognition of such anomalies is crucial, highlighting the importance of interdisciplinary collaboration and potential surgical interventions for optimal patient care.

Keywords: Intussuseption, CT Abdomen,inflammation.

IMAGING FINDINGS IN A CASE OF APPENDICULAR ABSCESS AS A COMPLICATION OF ACUTE APPENDICITIS IN A 3-YEAR-OLD PATIENT

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Appendicular abscess is a serious complication of acute perforating appendicitis that can arise in the pediatric population. In children the clinical presentation of acute appendicitis more often can present with atypical symptoms which can prolong the diagnostic period. Accordingly this can lead to complications as perforation of the inflamed appendix with consequent abscess formation. We present a case of a 3 year old female patient that was afebrile and had abdominal pain, vomiting and diarrhea for 7 days, that was treated as stomach flu by the general practitioner. However, the condition persisted and the laboratory results showed increased white blood count of 22 (normal range: 4,00-9,00 10/9L) and CRP of 155 (normal range: under 6mg/L), consequent laboratory results showed that these parameters increased constantly, the patient was admitted to the emergency department and examined by a pediatric surgeon, and the clinical examination showed diffuse abdominal tenderness. Accordingly, the child was admitted for observation and a CT scan with contrast of the abdomen was performed. The imaging results were in favor of perforated appendix with appendicoliths and an appendicular abscess collection. The indication for an emergency surgical intervention was made that confirmed the imaging findings and immediate appendectomy with evacuation of the abscess collection was performed. A post-operative course of antibiotic medication was prescribed. The patient was released in a good clinical condition after the surgical treatment. This case shows the importance of fast and accurate imaging diagnosis in cases with acute appendicitis in children which helps to prevent complications and longer recovery times for the patients.

Keywords: appendicular abscess, complicated appendicitis, CT findings, pediatric patient

DUPLICATION OF INFERIOR VENA CAVA (IVC) - AN INCIDENTAL FINDING ON A MULTIPHASE CT SCAN

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Duplication of the IVC is a rare congenital anomaly where the IVC divides into two separate veins. This duplication can occur in various forms, such as: Complete duplication: Both veins ascend separately and drain into the right atrium.Incomplete duplication: One vein is the dominant one, and the other remains smaller, often forming a communicating branch.

Intoduction: We present a case of 49 year-old-male Patient, which presented with non-specific lower abdominal pain and mild back discomfort. No significant history of venous thromboembolism (VTE) or other vascular diseases was noted.

Imaging Findings: The scan identified two parallel veins running along the lumbar spine and abdomen, both exhibiting typical venous features, including low attenuation in non-contrast phases and enhancement during contrast phases. These veins transition through the iliac veins, which demonstrate interiliac communication. Additionally, the merging of the two suprarenal IVC veins and two renal veins occurs with an outflow into the left inferior vena cava.

There was no evidence of thrombus, stenosis, or other pathologies in either vein. Other Abdominal Findings: No other significant abdominal pathology was detected. The kidneys, liver, and other organs appeared unremarkable.

Conclusion:The incidental finding of IVC duplication on a multiphase CT scan is a rare but important discovery that requires awareness for accurate interpretation and appropriate management. In this case, the duplication did not lead to any clinical sequelae, and the patient's management was conservative.

Keywords: Duplication of IVC, rare vascular anomaly, multiphase computed tomography.

BRAIN METASTASIS FROM LUNG CANCER

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Lung cancer is the leading cause of global cancer incidence and mortality, accounting for 2,4 million new cases and 1,8 million deaths in 2022. The most common symptoms of lung cancer include persistent cough, hemoptysis, weight loss, chest pain and dyspnea. One of the most common metastatic sites of lung cancer is the brain, with intracranial involvement in approximately 20% of patients at the time of diagnosis, and although rare the initial presentation of the disease can derive from this site.

A 60 year old male presented at the emergency department after a seizure, with no previous history of neurological symptoms. After being examined by a neurologist, a brain MRI was obtained. The MRI demonstrated a solitary, well-defined, periphery located, heterosignal lesion in the left frontal lobe with a 3 cm diameter, significant surrounding edema and heterogeneous signal enhancement in the post-contrast study. Differential diagnosis included meningioma, but with no conclusive signs about its meningeal origin and associated with an atypical appearance and excessive edema, a high grade malignant tumor was suspected. Given this suspicion the patient underwent neurosurgery and the post-operative histopathology report revealed an ill-defined, metastatic adenocarcinoma. Not knowing the primary focus, the patient was followed up with an abdominal and chest CT scan for further investigation. The abdominal scan was unremarkable, but the chest CT showed a solid mass with stellate appearance and a 3cm diameter, located apicoposteriorly in the upper left lobe, highly suspicious for lung cancer. CT-guided core biopsy was performed and the pathology report classified the tumor as lung adenocarcinoma. Despite undergoing an invasive course of chemotherapy, the follow up CT scans indicated volume progression of the primary tumor interrelated with left infraclavicular lymph node deposits and hematougenous dissemination to the right adrenal gland.

Keywords: lung cancer, brain metastasis, computer tomography

A RARE CASE OF DUPLICATION CYST OF ILEUM FOLLOWED BY COMPUTED TOMOGRAPHY AND ULTRASOUND, INCIDENTAL FINDING

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Duplication cysts of gastrointestinal system are rare congenital lesions because of congenital aberration during the development. They are commonly diagnosed during infancy and rarely in adulthood. We present an adult male 32 years old with incidental finding of duplication cyst of middle part of ileum at regular CT performing scan. The patient was with mild abdominal pain and constipation. The involved segment of the small bowel was about 7 cm in length. Duplication cysts may be present in every part of gastrointestinal system. Small intestine is the most common part (44%) of enteric duplication cysts, ileum being the commonest segment. The cysts may be either communicating or non-communicating. The asymptomatic cysts may be complicated by bleeding, fistulisation or even malignant transformation. We present a rare case of ileal non-communicating duplication cyst, a 32-year-old male patient presented with mild abdominal pain, bloating and constipation .His abdomen was distended, but no rigidity. Abdominal CT scan was performed with administration of intravenous contrast which showed a cystic lesion in the middle segment of the ileum bowel. The duplication cyst was about 7cm in length and average density of 9HU.The next day an ultrasound scan was performed on the patient to evaluate the duplication cyst. As of it radiological characteristics it was verified as duplication cyst of the ileum. The duplication cyst was treated by a laparoscopic total surgical excision. There were no postoperative complications.

Keywords: duplication cyst, ileum, gastrointestinal system.

SONOGRAPHIC FEATURES OF TESTICULAR TORSION IN NEONATE

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Neonatal testicular torsion is rare but critical condition requiring prompt diagnosis and intervention to prevent irreversible testicular damage.

A 3-day-old male neonate was referred for scrotal ultrasound due to bilateral scrotal swelling, dominant on the right side, accompanied by pain and bluish discoloration. Gray-scale and Doppler ultrasound revealed the following: the right testis appeared heterogeneous with subtunica fluid and a hydrocele, with no detectable vascular flow. The left testis, displaced peripherally within the scrotal sac, showed a hydrocele and diminished vascularity. These findings were consistent with right testicular torsion and left testicular compromise. Immediate surgical consultation was initiated.

The pediatric surgeon performed an emergency right orchiectomy and fixation of the left testis. Histopathological examination confirmed necrosis of the right testis due to torsion. The left testis was preserved, and the patient recovered without further complications.

The presence of a testicular mass or swelling in a neonate can pose a diagnostic challenge. Ultrasonography is the cornerstone of evaluation, allowing differentiation of neonatal testicular torsion from other conditions such as inguinal hernia, neoplasm, infection, or trauma. Inguinal hernia, occurring in 10–20 neonates per 1000 live births, is the most common differential diagnosis. Germ cell tumors, infections, and trauma are exceedingly rare in this age group.

Gray-scale and Doppler ultrasound are highly sensitive for identifying torsion, with key findings including heterogeneous testicular echotexture, subtunica fluid, and absent vascular flow. However, up to 40% of neonatal testicles may exhibit no apparent vascular flow due to physiological factors. Early surgical intervention is critical, as up to 80–100% of torsed testicles are nonviable at exploration.

Neonatal testicular torsion is a urological emergency requiring timely diagnosis and intervention. Early ultrasound evaluation is essential to guide management and improve outcomes.

Keywords: Neonatal testicular torsion, ultrasonography, orchiectomy.

INCIDENTAL BREAST LESIONS DETECTED ON CHEST CT

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When interpreting computed tomography (CT) of the chest it is important for radiologist to carefully review the breast. The purpose of our case was to discuss incidental breast lesions on chest CT with ultrasonography correlation and mammography, that may encounter in routine practice. We present a case of 53 years old woman with incidental finding of breast cystic lesions. She was diagnosed with pathohistological confirmed malignant lymphoma and she is properly treated at University Clinic for Hematology. She underwent chest CT, contrast enhanced. Axial CT image shows a 12mm. non contrast enhancing smooth oval mass without calcifications located in the left breast with low attenuation (25 HU). As more appropriate imaging in this situation, ultrasound and mammography were recommended for more precise diagnosis. Ultrasonography images show hypoechoic mass with regular shape and distinct margin and the patient was diagnosed breast cysts. Also, mammography was performed.
Lesions in breast which are detected by CT should be evaluated with mammography and ultrasound.

Keywords: incidental finding, breast, cystic lesion, computed tomography.

RARE LOCALIZATION OF LYMPH METASTASIS OF PAPILLARY THYROID CARCINOMA

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Introduction: Papillary thyroid carcinoma (PTC) is the most common form of differentiated thyroid carcinoma. Usually, metastasis occurs along lymphatic pathways in the neck and along jugular chain. Ultrasound is sensitive procedure for detecting metastatic lesions, but in rare cases isn't sufficient to detect unusual localization of metastatic lymph nodes.

We present the case of 28-year-old female, which was treated with iodine 131 (25mCi) in 2005 due to a toxic adenoma in the right thyroid lobe. After 10 years, follow up, an inhomogeneous nodule with central vascularization and d= 18mm was detected by ultrasound in the left lobe. FNAB showed a suspicion of malignancy, which was confirmed by histological findings of papillary thyroid carcinoma. After total thyroidectomy, followed by left lymphadenectomy (removed 6 lymph nodes /all positive for metastasis), and subsequent radioiodine therapy, whole body scan with iodine 131 detected an accumulation of the radiotracer in the left retro nasopharyngeal region. From clinical evaluation: elevated thyroglobulin level (10,2ng/ml) on thyroid-stimulating hormone (TSH) suppression (0,07mU/l), contrast – enhanced CT of the neck was done which confirmed the enlarged lymph node with d= 23 mm, in the left retro nasopharyngeal space and according to its appearance corresponds to a metastasis from the primary disease. The treatment of choice was surgery. Neck dissection or metastatic cervical lymph nodes themselves might alter the direction of lymphatic drainage, resulting in the unusual metastasis to the retro nasopharyngeal lymph nodes.

Conclusion: Metastasis to retro nasopharyngeal space in PTC is very rare and often missed on routine evaluation. Iodine 131 whole body scan is of primary importance in detection of rare metastatic lesions and CT scan can be added in challenging cases.

Keywords: Papillary thyroid cancer, metastatic lymph nodes, Iodine 131 whole body scan

CASE REPORT OF EWING SARCOMA AND UNDIFFERENTIATED SARCOMA OF THE TIBIA IN AN 18-YEAR-OLD BOY WITH INSULIN-DEPENDENT DIABETES MELLITUS TYPE 1

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This case report presents an 18-year-old boy with insulin-dependent diabetes mellitus type 1, who experiences pain in the right knee area, which intensifies at night. An x-ray of the right knee skeleton revealed a small osteopenic, partially inhomogeneous zone in the projection of the proximal metaphysis of the right tibia, extending towards the medial side, without periosteal reaction.

Additional examinations, including MRI of the right knee, biopsy with immunohistochemistry, bone scan and PET scan, were performed, leading to the diagnosis of Ewing sarcoma and undifferentiated sarcoma of the proximal metaphysis of the right tibia.

Ewing sarcoma is a rare disease that occurs in the younger population. Timely diagnosis is of essential importance, as even today, the treatment of this disease remains a challenge for modern medicine. This is especially true in patients with insulin-dependent diabetes, where certain osteopenic zones may be misinterpreted as concomitant conditions related to the chronic disease and insulin therapy. Therefore, close monitoring and further evaluation should not be omitted in radiological practice.

Keywords: Ewing sarcoma, Diabetes Mellitus type 1, Early diagnosis

THE ROLE AND IMPORTANCE OF THE SCREENING PROGRAM IN DETECTING INVASIVE BREAST CARCINOMA OF NONSPECIFIC TYPE IN WOMEN WITHOUT PREVIOUS DIAGNOSTIC PROCEDURES FOR BREAST CANCER

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A case presentation of a 66-year-old woman who was invited for a mammographic examination through the Screening Program for Early Detection of Breast Cancer. Previously, the woman had not undergone regular mammographic screenings. A mammogram was performed, and a spiculated dense mass of 2 cm was found in the upper lateral quadrant of the right breast, involving the surrounding parenchyma, highly suspicious for malignancy. A core biopsy was performed on the hypoechoic lesion of 2 cm in the upper outer quadrant of the right breast, guided by ultrasound. Three cylinders were taken, which were sent for pathohistological evaluation. The result from the pathohistological evaluation corresponds to invasive breast carcinoma of a nonspecific type.

Mamography is a gold standard for the diagnosis of breast cancer.

Keywords: Invasive Breast Carcinoma, Screening Program, Mammography

INVASIVE BREAST CARCINOMA OF NO SPECIAL TYPE: CORRELATION BETWEEN ULTRASOUND FINDINGS AND TUMOR GRADING

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Case report of a 67-year-old woman who noticed a hard, fixed mass in the upper outer quadrant of the right breast. A mammogram was performed, detecting three irregular dense changes in the upper outer quadrant of the right breast, the largest measuring 30mm x 28mm. The ultrasound examination showed these changes as heterogeneous, lobulated masses with dorsal sound enhancement. A core biopsy of the three masses was performed, followed by a pathological evaluation revealing Invasive Breast Carcinoma of No Special Type, Grade 3.

In Invasive Breast Carcinoma of No Special Type, the tumor mass is most commonly (75%) associated with dorsal attenuation of sound, but in our case, we observed dorsal sound enhancement. Literature indicates that dorsal sound enhancement in these types of tumors can be linked to Grade 3, the grading level. Our case confirms the correlation between the ultrasound findings and tumor grading.

Keywords: Invasive breast carcinoma of no special type, Ultrasound, Grading.

MULTISEPTATE (HONEYCOMB) GALLBLADDER ACOMPANIED WITH ANNULAR PANCREAS

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The multiseptate gallbladder is a rare congenital anomaly that may be isolated or associated with other anomalies of the pancreaticobiliary, urinary, and gastrointestinal tract anatomy. The coexistence of an annular pancreas with a multiseptate gallbladder is exceptionally rare. Diagnosis is typically established through abdominal ultrasound, but additional imaging is often necessary to confirm the anatomy of the pancreaticobiliary system. We present a case of a symptomatic multiseptate gallbladder existing alongside an incomplete annular pancreas of the second duodenal portion.

Case description: A 19-year-old male patient presented in the surgeons' outpatient clinic with an anamnesis for epigastric pain in the past two years with occasional vomiting not associated with food ingestion. Abdominal ultrasound revealed a multiseptate gallbladder without present calculi. The gastroscopy finding was normal. A test for Helicobacter pylori confirmed the present infection and it was treated with antibiotics and proton pump inhibitor. A gastroenterologist additionally prescribed ursodeoxycholic acid. The therapy did not eliminate the symptoms and therefore an abdominal computed tomography was ordered. It confirmed the presence of a multiseptate gallbladder and revealed the coexistence of an incomplete annular pancreas without CT signs for duodenal obstruction. Due to the missing consensus on the treatment of this condition and the patient's age, an initial nonoperative approach was proposed by the surgeon with close follow-up. However, after several attempts, the patient was unreachable for a check-up.

Keywords: Multiseptate; Gallbladder; Honeycomb; Annular Pancreas

NEUROBLASTOMA (ADRENAL NEUROBLASTOMA)

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Introduction: Neuroblastoma is the most common childhood extracranial tumor. It arises from the primordial cells of the sympathetic nervous system. It most often develops in the adrenal glands, but can also occur in other organs.

Case presentation: We present the case of a 9-year-old male child (B.S.) presenting for examination at the UK. "Mother Teresa" due to deep anemia in the hemogram, elevated inflammatory markers, fever in the last month and reduced body weight of 8 kg.

A CT scan with IVC was performed. The imaging revealed an irregular heterogeneous Tu change in the projection of the right adrenal gland, with a cystic, soft tissue component and calcifications present, which is post-contrast stained.

The change compresses and displaces the right kidney and surrounding blood vessels, without invasion. Radiological finding for Neuroblastoma, which was later confirmed pathohistologically. Laboratory tests and tumor markers with elevated values. Myelogram performed - with the finding of atypical cells (N-MYC). He was hospitalized several times for chemotherapy. The patient underwent surgery - tumorectomy of the right adrenal gland, and the control CT scan shows volume reduction of the tumor.

Due to MC deposits in the bones (confirmed by PET-CT), a bone marrow transplant was performed.

Brain MRI shows secondary deposits, which is why he was operated on: most of the tumor was excised, pathohistological finding- Dg. Neuroblastoma metastaticum cerebri. Postoperative control MRI shows reduced lesion dimensions. The patient continues to have high values of tumor markers.

Conclusion: About 50% of children with neuroblastoma are diagnosed when the disease has already metastasized. High-risk forms require intensive treatment with chemotherapy, surgery, stem cell transplantation, radiotherapy and immunotherapy. Although the prognosis for this group is worse, new therapies offer hope for improved outcomes.

Keywords: Neuroblastoma, metastasis, surgical treatment.

GASTROINTESTINAL TUMORS MIMICKING ADNEXAL MASSES, A REPORT OF TWO CASES

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Objectives: The aim of this abstract is to show the importance of radiological features of pelvic lesions in women, whose origin is mostly from the genital organs.
When these lesions are presented as a complicated cystic mass, they may originate from the gastrointestinal tract, as in our two cases.
Material and methods: A standard protocol of computed tomography of abdomen and pelvis(on 64sliceMDCT) with intravenous administration of contrast(i.v.c) and oral given positive contrast medium, was done in both cases.
Case presentation: The first patient was 22y/o/female, clinically presented with pain in right lower abdomen and obstipation. On the ultrasound exam there was a suspected large cystic mass in the right adnexa.
CT exam was done with finding a large complicated cystic lesion localized infraperitoneal on the right side with dimensions 85x60x80mm.
The second patient was 44y/o, clinically presented with a pain in right lower quadrant and periumbilical.The ultrasound exam shown large cystic mass in RLQ, and CT exam was done with a finding of a 4x7cm bilobulated cystic mass, with a marginal calcificate, adjacent to cecum. After i.v.c. there was no change in attenuation of the lesions in both cases.
Laparoscopic surgery was done in both patients. The pathohistological results were Tailgut cyst in 22y/o patient, and mucinous cystadenoma of the vermiform appendix at the 44y/o patient.
On the CT follow up, both patients were stable.
Conclusion: Gastrointestinal tumors can mimic adnexal lesion when located in the pelvic region. Therefore imaging modalities should first be performed for appropriate treatment.
Keywords: CT, pelvis, tumor

DIAGNOSIS OF OVARIAN TORSION

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Ovarian torsion is a rare but serious condition in young children, often presenting with nonspecific symptoms, leading to diagnostic delays. It is an uncommon but urgent condition in pediatric patients which arises from partial or complete twisting of the ovary and/or fallopian tube, leading to vascular compromise. Early diagnosis is crucial to prevent irreversible ovarian damage.

We present the case of a 4-year-old child, female. She was hospitalized at the University Clinic of Pediatric Surgery Skopje, with a history of acute-onset right lower quadrant abdominal pain for the past 12 hours. The pain was intermittent, associated with nausea and one episode of vomiting. No fever, diarrhea, or urinary symptoms were reported.

On physical examination, her abdomen was soft, with tenderness localized to the right lower quadrant. Laboratory investigations, including complete blood count and inflammatory markers, were not in normal limits.

A transabdominal ultrasound was performed, revealing an enlarged right ovary (measuring approximately 42mm x 23mm) with a heterogeneous echotexture and multiple peripheral follicles. Doppler evaluation demonstrated absent venous flow and minimal arterial flow, suggestive of ovarian torsion. No free fluid was detected in the pelvis.

A subsequent contrast-enhanced abdominal CT scan was performed to rule out other causes of acute abdominal pain. The CT confirmed an enlarged, edematous right ovary with twisted vascular pedicle, further supporting the diagnosis of ovarian torsion.

The patient was promptly taken to the operating room for diagnostic laparoscopy, which confirmed right ovarian torsion with a twisted fallopian tube.

Conclusion: This case highlights the role of radiology in the prompt diagnosis of ovarian torsion in pediatric patients. Awareness among clinicians and radiologists is essential for early recognition and timely surgical intervention to prevent ovarian loss.

Keywords: Ovarian torsion, pediatric radiology, ultrasound, Doppler, acute abdomen.

FOREIGN BODY INGESTION IN A PEDIATRIC PATIENT

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Foreign body ingestion is a common pediatric emergency, often occurring in children between the ages of 6 months and 6 years. This can result in a wide variety of clinical presentations, with approximately 50% of affected children remaining asymptomatic. Early diagnosis and intervention are crucial to prevent complications. Coins are the most frequently ingested objects, followed by toys, batteries, bones, and other small items. Radiological imaging, particularly radiography, is an essential diagnostic tool to locate the ingested object and determine the appropriate management approach.

This case report highlights a 4-year-old girl who presented to the emergency department two hours after ingesting a foreign body – coin. The clinical presentation included coughing and an urge to vomit. Radiological imaging confirmed the presence of a coin within the stomach, guiding appropriate management.

Keywords: Foreign body ingestion, pediatric radiology, coin ingestion, gastrointestinal foreign body, child safety.

GIANT CELL TUMOR OF THE TENDON SHEATH: MRI FINDINGS AND CASE REPORT

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Giant cell tumor of the tendon sheath (GCTTS) is a benign soft tissue tumor that can cause localized swelling, discomfort, or mechanical symptoms, often leading patients to seek medical attention. These tumors are typically slow-growing and may present as a painless, palpable mass, most commonly affecting the small joints of the hands and feet. This case report describes a 62-year-old woman who noticed a bump on the dorsum of her left foot three months prior to presentation. An MRI was performed, revealing an ovoid soft tissue mass, which was diagnosed as GCTTS. Early recognition through clinical examination and radiological assessment is essential for accurate diagnosis, timely intervention, and optimal management of tendon sheath tumors to prevent potential complications or recurrence.

Keywords: Giant cell tumor of the tendon sheath, GCTTS, MRI, soft tissue tumor, benign tumors, tendon sheath, radiological assessment, clinical diagnosis.

MYELODYSPLASTIC SYNDROME VS ORAL ANTICOAGULATION THERAPY IN INTRAMUSKULAR HAEMORRHAGE

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Oral anticoagulation therapy effectively reduces the risk of stroke in patients with atrial fibrillation. However, it also increases the risk of bleeding and therefore close monitoring is necessary. Various risk schemes have been developed based on individual risk factor to predict anticoagulant-associated haemorrhage and many of them include age, renal disease, history of bleeding and anemia. Notably, anemia is the most common clinical feature of myelodysplastic syndrome (MDS), a condition predominantly affecting the elderly. MDS may be linked to prior radiation exposure or chemotherapy. Symptoms commonly include fatigue, shortness of breath, chest pain, and dizziness due to the anemia, while thrombocytopenia-related bleeding or petechiae and neutropenia-associated infections may also occur intermittently.
We report the case of a 70-year-old woman who presented with prolonged fatigue and dizziness and was diagnosed with macrocytic anemia and pancytopenia. She was initially treated with vitamin B12 (cobalamin). Concurrently, she was diagnosed with atrial fibrillation and started on acenocoumarol, with regular international normalized ratio (INR) monitoring. In the following two months, her symptoms worsened, and a bone marrow biopsy confirmed a diagnosis of MDS. Her medical history included breast cancer 15 years prior, treated with surgery, adjuvant chemotherapy and radiation therapy as well as hormone therapy, which concluded six years ago. A computed tomography (CT) scan was performed to rule out malignancy, revealing an intramuscular haemorrhage in the right iliopsoas muscle. Acenocoumarol was discontinued immediately, and she received a transfusion of two units of red cell concentrate. One week later, anticoagulation therapy was resumed with apixaban. Three months after this adjustment, her symptoms had largely resolved.
Keywords: Acenocoumarol,oral anticoagulation therapy, intramuscular haemorrhage, myelodysplastic syndrome

RADIOLOGICAL DIAGNOSIS OF PRIMARY FAMILIAL BRAIN CALCIFICATION - A CASE REPORT OF FAHR DISEASE

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Introduction. Fahr disease, known as primary familial brain calcification (PFBC), is a rare neurodegenerative disorder characterized by progressive neurological and psychiatric symptoms due to bilateral basal ganglia and cerebellar calcifications. It is often inherited in an autosomal dominant pattern, though sporadic cases exist. Gene mutations are involved in calcium and phosphate metabolism, leading to abnormal calcium accumulation in brain tissues.
Case report. We present the case of a 43 age year old male patient with progressive gait disturbances, cognitive decline, and tremors. In family history, no neurological disorders were registered. Non-contrast CT imaging revealed extensive, symmetrical calcifications in the basal ganglia, thalami, cerebellar dentate nuclei, and subcortical white matter. MRI showed corresponding hypo - intensities on T2 sequence, with cerebral atrophy. Metabolic and endocrine evaluations were normal, and genetic testing confirmed a pathogenic SLC20A2 mutation, establishing the diagnosis of familial Fahr disease. This case highlights the crucial role of neuroimaging in diagnosing PFBC, differentiating it from secondary causes of brain calcifications, and guiding clinical management.
Conclusion. The gold standard for diagnosis is non-contrast CT, which clearly delineates the calcifications. This report presents a case emphasizing the radiological approach to diagnosis and the importance of differentiating PFBC from secondary causes of brain calcifications.
Keywords: Fahr disease, brain calcifications, CT imaging

RADIOLOGY ASSESSMENT ON INVASIVE LOBULAR CARCINOMA OF THE BREAST

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Introduction. Invasive lobular carcinoma (ILC) is the second most common type of breast cancer. It is characterized by diffuse infiltration of malignant cells in a single file pattern due to loss of E-cadherin expression, making radiologic detection challenging. Unlike invasive ductal carcinoma, ILC often presents as a subtle density or architectural distortion on mammography rather than a well defined mass.
Case report. We report the case of a 52 year old female, presented with a palpable mass in the left breast but no discrete mass on ultrasound and on mammography was found. Mammography revealed subtle architectural distortion without a clear mass, while ultrasound showed an ill-defined hypoechoic area without posterior acoustic shadowing. Tomosynthesis was additionally performed, due to subtle architectural distortion without a clear mass, to provide a better visualization. Using MRI of the breast demonstrated a non-mass enhancement with irregular margins, highly suspicious for malignancy. A core needle biopsy confirmed ER+/PR+/HER2− invasive lobular carcinoma.This case highlights the diagnostic challenges of ILC, emphasizing the importance of additional imaging (MRI) for accurate tumor characterization. Given its multifocal, multicentric, and contralateral involvement tendencies, imaging and staging are crucial for optimal management.
Conclusion. Invasive lobular carcinoma often presents subtly on conventional imaging, necessitating a multimodal imaging approach for early detection and accurate staging. This case underscores the importance of MRI in assessing disease extent, guiding surgical planning, and optimizing patient outcomes.
Keywords: Invasive lobular carcinoma, breast cancer, mammography, tomosynthesis, MRI

ATYPICAL INFLAMMATION OF LARGE BOWEL INTESTINE DUE TO ILEOCECAL DIVERTICULOSIS

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Abstract: Diverticulitis is a complication of diverticulosis, actually it is an inflammation of diverticula in the large intestine, most common in the population aged 60 and above and its most commonly affected is the sigmoid colon.
It may cause pain, fever, nausea, and changes in stool habits. Mild cases are treated with diet and antibiotics, while severe cases may require surgery. Cecal diverticulitis, though uncommon, should be considered in the differential diagnosis of right lower quadrant pain. It can be misdiagnosed as acute appendicitis or a cecal tumor, and may require surgery if complications arise.
Introduction: We present a case of 68-year-old female patient with a newly diagnosed cecal diverticula and diverticulitis and few polyps, identified due to acute right lower quadrant pain associated with diffuse abdominal pain and fever.
The patient was first presented with chest pain and went to the cardiologist where cardiac involvement was ruled out. Due to combined symptoms of diffuse abdominal pain with sharp pain in the lower right quadrant accompanied by nausea and vomiting the patient was sent to gastroenterologist.
The patient had history of previous self-treated episodes of abdominal pain and also appendectomy where acute appendicitis was ruled out.
An ultrasound showed unconclusive results where lab results showed leukocythosis, high values of C-reactive protein . Contrast enhanced CT abdomen was indicated which revealed an inflammatory and thickened wall of the right hemicolon. A colonoscopy was performed and it was revealed a cecal diverticula with few polyps which were removed, pathohistologically analyzed and a tubular adenoma with high grade displasia was diagnosed.
Conclusion: The importance of this case is to exclude acute appendicitis and cecal tumor which are presented with similar symptoms as diverticulitis and to make algorithm for further treatment.
Keywords: Cecal Diverticulitis,Abdominal Pain,Tubular Adenoma

Varia

STIFF PERSON-LIKE SYNDROME: A CASE REPORT

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Introduction: Stiff Person Syndrome (SPS) is a rare neurological disorder characterized by fluctuating muscle rigidity of the axial and proximal lower limb muscles that leads to gait problems. The etiology is unknown, but an autoimmune pathogenesis is suspected. Left untreated, symptoms can progress to cause significant disability and poor quality of life. Pharmacological treatment is focused on muscle relaxants, immunomodulatory or immunosuppressive drugs. Physical therapy and rehabilitation is often recommended.
Case report: We present a case of a 57 year old woman with a history of an ongoing progressive weakness of the left leg, balance and gait abnormalities for about 6 years, that exacerbated in February 2023 with inability to walk for more than 20 meters. She was hospitalized at a University Clinic of Neurology for diagnostic purposes. On the MRI of cervical, thoracic and lumbar spine there was disc herniation on L4/L5 and L5/S1 level without myelopathy and no spinal canal stenosis. Evoked potentials with normal findings. Electromyoneurography findings, difficult relaxation was registered by continuous monitoring of AMP in the left spinal patavertebral muscles and neurogenic AMPs (higher voltage, prolonged and polyphasic) in the quadriceps muscles. Antiglutamic acid decarboxylase antibodies were negative. Doubt raised about SPS. The patient was treated with high pulse doses of corticosteroids, but without significant improvement. Afterwards she was admitted to our clinic for rehabilitation with active movements in all four extremities in full range, but with muscle hypotrophy, hyperlordotic posture, instability when standing and walking, walked with a cane, very difficult. The rehabilitation included hydrotherapy, manual massage, robotic rehabilitation, trunk exercises, exercises for upper and lower extremities and balance exercises.
Results: After 4 weeks of rehabilitation the patient had improved trunk balance and muscle strength in her lower extremities. Her walking pattern was better with forearm crutch with pronounced lumbar lordosis and subjective feeling of stiffness in her lower extremities.
Conclusion: Physical therapy and rehabilitation reduces muscle stiffness and improves body balance so walking is more stable in this patients.

Keywords: Stiff Person Syndrome, gait disability, rehabilitation.

THE EFFECTS OF TRIPLEGIA REHABILITATION AS A COMPLICATION OF SARS COV 2 INFECTION

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Introduction: Ischemic stroke with subsequent triplegia is a serious complication of SARS CoV 2 infection. Rehabilitation is necessary in the treatment of the consequences of ischemic stroke. Case report: We present a case of a 41-year-old patient who was infected with SARS-CoV-2. She was initially treated for 10 days at home with antibiotic therapy, but due to a sudden deterioration of the condition, high fever and lethargy, with a progressive decrease in saturation, she was hospitalized in the intensive care unit and placed on non-invasive mechanical ventilation. After 20 days, she was extubated, but with a plegic left arm and lower extremities. A CT scan was performed with findings consistent with cerebral ischemia in the right parietal lobe. After 40 days of hospitalization, she was transferred to our rehabilitation clinic, respiratory sufficient and hemodynamically stable. The Barthel index, Fugl-Meyer and Aschwort scale were used for functional and motor assessment. The following rehabilitation protocol was applied for 4 weeks during 3 hospitalizations with breaks of 2 months each: passive exercises and manual massage for plegic extremities, active exercises for the right extremity, occupational therapy, respiratory exercises, trunk exercises, balans exercises, verticalization and walking exercises.
Results: After the third rehabilitation treatment, the patient performed active movements in the left shoulder, limited supination in the elbow, partial volar and dorsal flexion in the left hand and fingers, movements were dysmetric with reduced speed and dexterity. Reduced use of the left hand in everyday activities. She was verticalized with a walker and walked short distances, with an left peroneal foot orthosis. There was a significant improvement on the functional and motor assessment.
Conclusion: Rehabilitation has a key role in the treatment of the consequences of stroke after SARS-CoV-2.It leads to improvement of motor and functional status.

Keywords: SARS-CoV-2, ischemic stroke, rehabilitation

A CASE REPORT FOR MYOCLONUS-DYSTONIA SYNDROME

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Introduction: Myoclonus-dystonia is a rare inherited disorder marked by a combination of myoclonic jerks and dystonia starting in the first two decades of life that can lead to functional disability.
Methods: We present a case study of a patient diagnosed as probable MDS based on clinical and electrophysiological features, which was later genetically confirmed.
Results: A 55-year-old female was admitted to our clinic complaining of sudden, involuntary, brief jerking movements of the arms, balance problems, abnormal posturing of the legs, speech and swallowing difficulties, along with involuntary tongue movements. Symptoms started at about 12 years of age with slow but continuous progression. Family history revealed similar symptoms in her son but not in ancestors. She was previously treated with benzodiazepines, anticholinergics, and L-dopa with no effect.
Examination revealed multifocal myoclonus triggered by posture and activation, most frequently in the upper part of the body with variable amplitude, focal dystonia of the foot, orolingual dystonia, dysarthric speech, and truncal dystonia.
The patient underwent extensive diagnostic evaluations, including laboratory tests (ceruloplasmin, copper, ferritin, acanthocytes), genetic testing for Huntington disease, and brain MRI, which were normal. Electromyography, EEG, and SSEP investigations suggested non-epileptic, subcortical myoclonus. The diagnosis of probable myoclonus-dystonia syndrome was concluded. Treatment with Levetiracetam was partially successful. After four years, genetic testing identified a mutation in the epsilon-sarcoglycan gene.
Conclusion: SGCE myoclonus-dystonia should be suspected in patients with myoclonus alone or with dystonia that begins in the first or second decade of life. A lack of positive family history can be correlated with reduced penetrance of the gene or de novo mutations. This case highlights the importance of comprehensive testing in diagnosing rare movement disorders and the potential role of genetic counseling and treatment options.
Keywords: Myoclonus-dystonia syndrome, rare disease, movement disorder, neurological examination, Levodopa resistance, focal dystonia, MRI findings.

DIGITALLY GUIDED DENTISTRY VS CONVENTIONAL METHODS IN DIAGNOSIS AND TREATMENT OF RARE CASES OF SUPERNUMERARY TEETH- CASE REPORT

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Supernumerary teeth are odontostomatologic anomaly characterized by the existence of excessive number of teeth in relation to the normal dental formula. The possible mechanisms of development are described, with a localized hyperactivity of the dental lamina being the most widely accepted theory. Many studies reported the prevalence of 0.15% to 3.8% supernumerary teeth in the permanent dentition. Supernumerary premolars are very rare and occur with a prevalence of 0.29–0.64% They are also the most common supernumerary teeth in the mandibular arch (7%), and their incidence is 1%. Maxillary supernumerary premolars are found to occur at a lower rate (26%). The occurrence of multiple (more than two) supernumerary teeth without any associated systemic conditions or syndromes, however, is a rare phenomenon and occurs in less than 1% of cases. 75% of these teeth are impacted, unerupted, and generally asymptomatic. Supernumerary premolars may not become radiographically visible until the patient's normal premolars have erupted. For early diagnosis and appropriate follow-up the use of digital dentistry, instead of conventional X - ray is extremely important. This case report shows a rare occurrence of a supernumerary premolar in the upper jaw in a 17-year-old girl, who complaint of frequent pain during eating food, itching in gum with occasional bleeding. Intraoral examination revealed presence of supernumerary tooth which was present in maxillary premolar region. The Panoramic X-ray didn`t show the contours of the supernumerary tooth, but after making the 3D the rudimentary tooth was shown in the premolar area. The patient was advised for extraction and possible orthodontic treatment after the surgical intervention, which was performed under local anesthesia. Various treatment recommendations are also discussed. Conclusion. Digitally guided dentistry provides superior advantages in the diagnosis and therapy of supernumerary teeth.

Keywords: supernumerary teeth, digital dentistery, early diagnosis

SURGICAL REPLACEMENT OF THE MITRAL VALVE WITH A MECHANICAL PROSTHESIS IN THE TREATMENT OF HYPERTROPHIC OBSTRUCTIVE CARDIOMYOPATHY (HOCM)

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Hypertrophic cardiomyopathy is a thickening of the left ventricular wall ≥ 15 mm in absence of overloading causes like hypertension, aortic stenosis and storage diseases. In majority of cases, it occurs due to a genetic mutation of the cardiac sarcomeres.

We present a case of 24-year-old male patient with severe fatigue, dyspnea, chest pain and dizziness. The family history of heart diseases is negative. Echocardiography reveals severe hypertrophy of the left ventricle with presence of systolic anterior motion (SAM) of the anterior mitral cusp, causing left ventricular outflow tract obstruction (LVOTO) with pressure gradient of 190 mmHg and moderate mitral regurgitation. For finest diagnostic assessment of the patient, a cardiac magnetic resonance (CMR) was performed. Asymmetric hypertrophy of the left ventricle was found on a four-chamber view. Three-chamber view presented SAM and LVOTO, with elongated anterior mitral cusp and abnormal chordae insertion, leading to severe mitral regurgitation and enlarged left atrium. After the application of a gadolinium contrast, LGE (Late Gadolinium Enhancement) was observed in the hypertrophied part of the myocardium and at insertion point. LGE is an indicator of cardiac fibrosis, which increases the risk of malignant arrhythmias and sudden death. However, 24h Holter monitoring in our patient excluded serious arrhythmias for the time being. Cardiac surgical treatment was indicated. Under general anesthesia, surgical replacement of the mitral valve with a mechanical prosthesis was performed with complete resolution of the LVOTO and the mitral regurgitation. Postoperatively, the patient underwent an echocardiographic examination, which revealed a significant decrease in the LVOT pressure gradient (12 mmHg).

After the treatment, the patient's symptoms completely resolved. This case highlights the importance of diagnosing myocardial hypertrophy in a timely manner, in order to make a correct evaluation for appropriate management.

Keywords: HOCM, mechanical valve, CMR.

PHYSICAL THERAPY AND REHABILITATION IN A PATIENT WITH LUMBOSACRAL RADICULOPATHY AND LOW BACK PAIN

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Background Lumbosacral radiculopathy is a term used to describe a pain syndrome caused by compression or irritation of nerve roots in the lower back. [1,2] It can be caused by lumbar disc herniation, degeneration of the spinal vertebra, and narrowing of the foramen from which the nerves exit the spinal canal.

Methods: A 58-year-old patient complains of pain in the lower back and both legs with a feeling of tingling, pain in the ankle joints. The complaints are of a chronic nature, more intense in the last year. A neurosurgeon and neurologist were consulted. MRI of the spinal column, EMG of the lower extremities were performed. Physical examination found spine with loss of lumbar lordosis. Movements in the lumbar area with limitation during anteflexion fingers-below 60cm and retroflexion. Lower limbs: Musculature with good trophic and tone. Movements in all joints are possible to a full extent. The Lasegue sign negative bilaterally. Patellar reflexes are obtained symmetrically. Hypoesthesia at dermatomes L4/L5/S1 is more pronounced on the right leg. Result: Patients undergo treatment with physical therapy, which has been shown to be effective in early functional recovery.

Conclusion Lumbosacral radiculopathy is a prevalent issue. Timely reporting to the physician and coordinated team management are essential for optimizing patient outcomes.

Keywords: Lumbosacral radiculopathy, low back pain, physical therapy

PHYSICAL THERAPY AND REHABILITATION IN A PATIENT WITH NECK PAIN

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Background Neck pain, or cervicalgia, can last from days to years, depending on the cause. Common causes include physical strain, poor posture, mental stress, osteoarthritis, spinal stenosis, herniated disk, pinched nerve, tumors and other health conditions.
Methods: A – 42 year old patient complains of pain in the neck which spreads to the right arm, tingling along the right arm, frequent dizziness, pain in the right shoulder. The complaints are of a chronic nature.MRI of the spinal column, EMG of the upper extremities attached. Physical examination found spine with loss of cervical lordosis. Movements in the neck are limited in all directions and performed cautiously. Upper limbs: movements in the right shoulder easily limited in all directions accompanied by pain, left shoulder movements are possible in full range, elbow, forearm, wrists and hands are possible in full range. Sensibility preserved. Tendon reflexes are obtained symmetrically.
Result: The majority of neck pain guidelines recommend evidence-based physiotherapy treatments.
Conclusion Many studies have examined whether physical therapy can help reduce spine-related pain, such as in the lower back or neck.
Keywords: neck pain, cervicalgia, physical therapy

BIOPSYCHOSOCIAL INTEGRATED CARE IN A PRESSURE ULCER PATIENT

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Introduction: Advances in technology and medicine have increased global life expectancy, including in our country. While acute disease deaths have declined, the population with chronic illnesses has grown, significantly impacting quality of life. Family medicine, palliative care, and home health services are crucial. Palliative care aims to alleviate suffering and improve quality of life through continuous, patient-centered, and holistic approaches.

Objective: This presentation discusses palliative care and home health strategies for a patient with a decubitus ulcer, emphasizing a holistic approach and continuity of care.

Findings: The patient, an 89-year-old female with hypertension, type 2 diabetes, and a history of thromboembolism, was transferred from intensive care due to malnutrition and stage-4 decubitus ulcers. Nutritional support and a tissue biopsy were performed, followed by a 14-day cefazolin treatment. Bedside exercises and psychosocial support were provided. One ulcer healed completely, while the other improved to stage-2. She was then referred to home health care for ongoing treatment.

Discussion and Conclusion: A multidisciplinary approach enhances the quality of life for patients and their families. Coordinated care between family physicians and home health units ensures continuity and safety during transitions.

Keywords: Family Medicine, Palliative Care, Home Health Care, Pressure Ulcer

EPILEPTIC SEIZURE AS FIRST MANIFESTATION OF HIV INFECTION

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Introduction: Toxoplasmosis is recognized as the most prevalent opportunistic infection affecting the central nervous system in individuals with HIV/AIDS. The clinical presentation commonly includes encephalitis alongside systemic symptoms such as fever and headache. Without timely diagnosis and appropriate therapeutic intervention, this infection poses significant life-threatening risks to affected patients.

Case Presentation: A 42-year-old male presented to the emergency department following an epileptic seizure. The seizure commenced focally, indicated by clonic movements of the left thumb and index finger, subsequently spreading to the entire left arm, culminating in a generalized tonic-clonic seizure. The seizure duration was brief, followed by postictal confusion. Neurological assessment revealed latent left-sided weakness. A computed tomography (CT) scan of the brain revealed two hypodense lesions predominantly located in the temporal and parietal regions, surrounded by edema. Subsequent administration of contrast demonstrated ring enhancement of these lesions. The EEG indicated desynchronized baseline activity with predominant focal slow wave activity localized mainly in the right frontotemporal region. Initially, tumor markers were performed and were negative. However, serological tests for infectious diseases confirmed that the patient was HIV positive, a status he was unaware of prior to testing, and had concomitant Toxoplasma gondii infection. The patient was initiated on antimicrobial therapy, with Oxcarbazepine prescribed as the antiepileptic drug of choice. After initial stabilization, the patient exhibited a reoccurrence of seizures after one year, prompting an increase in the dosage of the antiepileptic medication. However, this adjustment yielded no significant improvement. Consequently, a therapeutic switch from Oxcarbazepine to Levetiracetam was implemented, resulting in satisfactory seizure control without significant interactions with the ongoing antiretroviral regimen.

Conclusion: Effective management of Toxoplasmosis in patients with HIV/AIDS necessitates prioritizing the treatment of the primary infectious process. However, the control of associated symptomatic epilepsy is crucial, representing a significant determinant of the patient's quality of life.

Keywords: HIV/AIDS, epilepsy, toxoplasmosis

ON DUTY AND IN LIFE: LIVING WITH CROHN'S DISEASE

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Introduction: Chronic abdominal pain, weight loss, joint pain and gastrointestinal symptoms present a wide range of differential diagnoses, often associated with inflammatory bowel diseases (IBD) or systemic inflammatory processes. Crohn's disease, a subtype of IBD, can cause both gastrointestinal and systemic symptoms. This case focuses on the counseling process for diet, exercise and lifestyle in a 27-year-old male patient diagnosed with Crohn's disease following recurrent abdominal pain episodes and colonoscopy.

Case: A 27-year-old male military personnel, with a history of perforated appendicitis treated by appendectomy and inflammatory rheumatism, reported intermittent abdominal pain, weight loss, fatigue and joint pain over three years. Physical examination revealed no significant findings, but colonoscopy results showed features consistent with Crohn's disease, confirmed by pathology. The patient sought evaluation of his physical fitness for military duties. Comprehensive counseling was provided, covering the following:

Dietary Counseling:

A low-fiber, balanced diet was advised to minimize bloating, pain, and diarrhea.

Possible lactose intolerance was noted, recommending controlled dairy consumption.

Omega-3-rich and anti-inflammatory foods (e.g., salmon, walnuts) were suggested.

Liquid diets were emphasized during severe symptom periods.

Exercise and Physical Activity:

Moderate activities, such as walking and yoga, were encouraged to reduce stress and support the immune system.

High-intensity exercises were discouraged.

Lifestyle Changes:

Stress management techniques, including breathing exercises and meditation, were introduced.

Complete smoking cessation was strongly recommended, as smoking worsens Crohn's disease.

Conclusion: Crohn's disease significantly affects quality of life and requires a multidisciplinary approach. Diet, exercise, and lifestyle modifications play a key role in managing symptoms. Raising awareness through campaigns like Crohn's Disease Week can promote these strategies to a wider audience.

Keywords: Crohn's disease, Lifestyle Counseling, Chronic Disease Management

A CASE OF DIABETIC FOOT ACCOMPANIED BY ARTERIAL OCCLUSION IN A PALLIATIVE CARE CENTER: AN INTERDISCIPLINARY APPROACH TO TREATMENT REFUSAL

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Introduction
Diabetes is a chronic disease that poses a significant threat to publich health. Diabetic foot, particularly with complications constitutes a serious concern. Managing such cases requires a multidisciplinary approach. This study aims to emphasize the impact of a multidisciplinary approach in a diabetic foot case with poor treatment adherence.
Case
A 72-year-old male patient with a history of diabetes, hypertension, Alzheimer's disease and cerebrovascular event was admitted to the palliative care center due to reduced oral intake, a foul-smelling foot wound, and deterioration of his general condition. The patient reported that his wound began as a 2–3 cm ulcer on the sole of his foot approximately five months prior, without any trauma. During this period, although amputation was recommended, it was refused by the patient and his caregivers. Consequently, the patient's condition worsened, leading to his admission to our center.
Physical examination revealed infected and necrotic lesions on the left foot, along with arterial occlusion in the lower left extremity. The patient was diagnosed with infection and acute renal failure. Nutritional support was provided in collaboration with the nutrition team, and parenteral antibiotic therapy was initiated. Following multidisciplinary evaluation and psychological counseling, informed consent was obtained from the patient and his caregivers, and amputation was performed. Post-surgery, the patient was monitored in the palliative care center for rehabilitation and wound care education.
Discussion and Conclusion
In conclusion, for life-threatening conditions such as diabetic foot, the interdisciplinary team approach in palliative care plays a critical role in ensuring effective medical and surgical interventions. Supporting and informing patients and their families enhances process management, improves adherence to individualized care plans, and positively impacts quality of life.
Keywords: Diabetic Foot, Palliative Care, Multidisciplinary Approach

DIAGNOSIS OF COCCYGEAL CHORDOMA BY FINE-NEEDLE ASPIRATION BIOPSY: A CASE REPORT

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Chordoma is a rare malignant neoplasm demonstrating notochordal differentiation and the diagnosis is typically established through a combination of imaging techniques and histopathological examination, while cytopathology is not routinely used as preoperative approach for its diagnosis. Here we present a case of 40-year-old female patient, referred for fine needle aspiration biopsy (FNAB) at the Institute of Oncology Ljubljana, Slovenia, due to the pain in the coccygeal region and a lump on the right of the tailbone. The cytopathological evaluation of the May–Grünwald Giemsa- and Papanicolaou-stained smears of the FNAB sample revealed presence of single or small groups of epithelioid cells with abundant basophilic cytoplasm, normochromatic nuclei and mild anisonucleosis. Moreover, immunocytochemical (ICC) staining for cytokeratin CKAE1/AE3, Brachyury and S100 was performed. The ICC resulted with a positive reaction to cytokeratin CKAE1/AE3 and Brachyury but negative reaction to S100. Based on these findings, the cytopathological diagnosis was finalized as chordoma. Subsequent magnetic resonance imaging of the pelvic cavity of the patient and standard histological examination of the surgically removed tumor additionally confirmed the chordoma diagnosis. No additional therapeutic methods were needed after the resection of the tumor. The case highlights the potential of FNAB as a modality in the preoperative diagnosis of chordoma.
Keywords: chordoma, fine needle aspiration biopsy, preoperative diagnosis

DIAGNOSING METASTATIC SMALL CELL LUNG CARCINOMA FROM SUBCUTANEOUS NODULE USING FINE-NEEDLE ASPIRATION BIOPSY: A CASE REPORT

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Small cell lung carcinoma (SCLC) is an aggressive lung neuroendocrine neoplasm known for its rapid progression and tendency to disseminate to the liver, bone, brain, adrenal glands and both ipsilateral and contralateral lungs. However, subcutaneous metastasis represent a rare form of metastatic spread in SCLC. In cases of subcutaneous nodules with no prior clinical evidence of cancer, fine-needle aspiration biopsy (FNAB) is used as initial diagnostic approach. Here we present a case of a 72-year-old female patient, referred to the Institute of Oncology Ljubljana, Slovenia with a history of active smoking for five years and passive exposure in work environment. The patient presented symptoms of a persistent cough and a 3 cm subcutaneous nodule above the left shoulder blade that has been slowly growing over the past three months. FNAB was performed on the nodule, and Giemsa- and Papanicolaou-stained smears of the sample showed a presence of monomorphic population of small round cells with scant cytoplasm and hyperchromatic nuclei with condensed chromatin . Flow cytometry and immunocytochemistry were performed to further investigate the possibility of lymphoma and carcinoma, respectively. Flow-cytometric analysis excluded lymphoma, while immunocytochemistry showed a positive reaction for cytokeratin CKAE1/AE3, synaptophysin and CD56, confirming small cell carcinoma with neuroendocrine differentiation. The FNAB results correlated with X-ray findings retrieved from the patient's referring institution (received after the cytopathological evaluation was made), and a subsequent CT scan of the patient established the final diagnosis of SCLC. Subcutaneous metastasis of SCLC are rare site of dissemination; however, when present FNAB can be used as valuable diagnostic tool for initial evaluation.

Keywords: small cell lung carcinoma, subcutaneous metastasis, fine-needle aspiration biopsy

REHABILITATION OF PATIENT AFTER ACETABULAR FRACTURE, HIP LUXATION AND PARALISIS OF SCIATIC NERVE- ONE YEAR FOLLOW-UP

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Introduction. Acetabular fractures are much less common than other hip fractures. They may be associated with hip dislocation, nerve injury etc. They can cause a significant reduction of range of motion and function. These patients need rehabilitation to improve their function.
Aim. The aim is to present rehabilitation methods and treatment outcome of a patient with a surgically treated acetabular fracture, hip luxation (dislocation) and paralysis of the sciatic nerve.
Case report. A 45-year-old man suffered a posterior hip dislocation of the left hip, fracture of the acetabulum and paralysis of sciatic nerve. Luxation was treated conservatively with repositioning, while the fracture was treated with osteosynthesis. He was admitted for postoperative rehabilitation, when he had a restricted range of motion in his left hip, hypotony and hypotrophy of the left calf muscle, no active flexion in his left ankle, gait with two forearm crutches and "peroneal" gait with the left leg.
The patient was assessed with clinical examination, measurement of range of motion, manual muscle test and Haris Hip Score. The rehabilitation program included exercise therapy, pool exercises, massage, occupational therapy, and electrotherapy. He received ankle foot orthosis for reduction of ankle extension. He had an assessment by a social worker, because the patient worked as open pit miner. He was on rehabilitation twice. After the second rehabilitation there was an improvement in the range of motion in his hip and improvement in the functional status (Haris Hip Score 74 points), but the paralysis of the sciatic nerve still existed. His gait was with ankle foot orthosis of the left leg and a forearm crutch.
Conclusion. Multidisciplinary approach in rehabilitation of patient with acetabular fracture, posterior hip dislocation and nerve injury is very important to improve range of motion in the hip, muscle trophy and gait.

Keywords: acetabular fracture, sciatic nerve paralysis, rehabilitation

THE IMPORTANCE OF AUTOPSY IN DETERMINING CAUSES OF DEATH IN CULTURAL CONTEXTS WHERE SUICIDE IS STIGMATIZED

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Suicide is deeply stigmatized in many cultures, leading the families of the deceased to not only deal with the stress of loss but also to be judged by the community. The autopsy is important in this context because stigma may affect how such deaths are treated and investigated. One of the basic goals of the autopsy is to answer what caused the death and how the death occurred. Answering those questions is crucial for legal processes, as it relates to whether laws were broken and a wider grasp of what happened surrounding the death. In this regard, we present the autopsy case of a 65-year-old man who, according to the investigators, most likely committed suicide on the railway track when an approaching train struck him. The autopsy revealed extensive destruction of the occipital brain region and contusions in preserved brain structures. A complete aortic rupture (2 cm in length) was found in the ascending part, surrounded by hemorrhagic soft tissue infiltration. The external and internal examinations did not find any thoracal injuries. The only external injuries were in the head region. The cause of death was the destruction of the brain due to mechanical trauma. The injury positioning shows that the pedestrian was sitting, facing away from the oncoming train. The presence of a premortem aortic rupture in a region typical of spontaneous ruptures, combined with the absence of any thoracic injuries such as ribs or vertebral fractures, raises the possibility that the pedestrian experienced acute pain and weakness due to the rupture, leading to loss of situational awareness. This case highlights the importance of autopsy in differentiating accidental death from suicide, particularly in cultures where suicide is stigmatized. The autopsy provided relevant insights into the circumstances surrounding the death since we identified an underlying medical event preceding the fatal event.

Keywords: autopsy, aortic rupture, railway fatality, cultural stigma, suicide, cause of death determination

HAND, FOOTH AND MOUTH DISEASE IN AN ADULT: A CASE REPORT

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Introduction: Hand, foot, and mouth disease (HFMD) is a highly contagious viral infection, frequently observed in children but increasingly reported in adults. It is primarily transmitted via the fecal-oral route, but also spreads through respiratory droplets, direct contact, and oral-oral transmission. The most common causative agent is Coxsackievirus A16, though other Coxsackievirus strains may also be responsible. HFMD typically presents with fever, fatigue, myalgia, and lymphadenopathy, followed by maculopapular or vesicular lesions on the hands, feet, and oral mucosa. While the disease is usually self-limiting, complications such as meningitis, encephalitis, and myelitis may occur. The rising number of adult cases underscores the importance of recognizing HFMD in older populations.
Case Presentation:
A 23-year-old male presented with painful vesicular and macular lesions on his hands, feet, and oral mucosa. He reported that the first lesion appeared inside his mouth three days prior, followed by lesions on his hands and feet. Initially diagnosed with stress-related lesions at another healthcare facility, he sought further evaluation due to the worsening condition. The patient resided in a dormitory with poor hygiene and worked as a high school trainee teacher, frequently interacting with students. He denied any recent history of animal contact or sexual exposure. His past medical history included hemorrhoids and a previous fungal infection in the genital area. He did not smoke or consume alcohol.
He reported high stress, sleep deprivation, and an unhealthy diet in recent weeks. Ten days before symptom onset, he had traveled to Istanbul and attended a crowded New Year's Eve gathering. Despite no similar cases among his close contacts, his social interactions suggested potential exposure.
Based on clinical findings, he was diagnosed with hand, foot, and mouth disease and received supportive treatment. Five days later, the lesions healed with desquamation, and no additional symptoms were observed.
Keywords: HFMD, Adults, Coxsackievirus

HETEROZYGOUS FAMILIAL HYPERCHOLESTEROLEMIA DETECTED IN PRIMARY CARE

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BACKGROUND/AIM: Familial hypercholesterolemia (FH) is under-recognized and commonly treated sub-optimally especially in primary care, mainly due to a lack of awareness and knowledge of this condition. Whit this case report we aimed to improve FH detection in primary care.

CASE REPORT: Male 36 years old, with family history of hypercholesterolemia consults his general practitioner for a routine follow-up of hypercholesterolemia and statin therapy prescription. For the first time, elevated lipid levels were noted ten years ago, on his 26 age (10 mmol/L for total cholesterol) when he started lipid-lowering therapy with atorvastatin 10mg. The patient has no history of kidney disease, diabetes, or hypothyroidism to suggest a secondary cause for hypercholesterolemia. He is a non-smoker and refers no alcohol consumption. Also, he has no history of hypertension or cerebrovascular disease. Besides adequate adherence to lipid-lowering therapy, levels of total cholesterol (TC) and low-density lipoprotein cholesterol LDL-c are remaining sub-optimal (TC 9.64, 8.67, 10.21, 5.78mmol/L, LDL-c 7.19, 6.7, 7.1, 3.77mmol/L, respectively). For the last two years his lipid-lowering therapy was replaced with rosuvastatin 20mg. In 2024, he was clinically diagnosed with FH in primary care fulfilling the Simon Broome Criteria (possible FH) and Dutch Lipid Clinic Criteria (score of 6: probable FH). Subsequently, after consultation with cardiologists, genetic testing was done, and he was confirmed to have a heterozygous LDLR c.1151A>C, p. Gln384Pro exon 8 pathogenic variant. His lipid-lowering therapy was intensified with ezetimibe 10mg. to achieve the recommended treatment target for LDL-c <2.6mmol/L.

DISCUSSION AND CONCLUSION: Familial hypercholesterolemia can be clinically diagnosed in primary care to identify those who may require genetic testing. Multidisciplinary care focuses on improving identification, cascade screening, and management of FH, which is vital to improving prognosis and preventing premature cardiovascular events.

Keywords: Familial hypercholesterolemia, heterozygous, primary care

OSTEONEVUS OF NANTA RARE ENTITY

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Case presentation: Osteonevus of Nanta is a rare benign skin lesion featuring with osseous metaplasia in a melanocytic nevus. Commonly diagnosed in adults, particularly women in their 40s and 50s, it was first described by Heidingsfeld in 1908 and named in 1911. With an incidence of about 0.14% among pigmented skin lesions, it commonly presents as a firm, dome-shaped or pedunculated papule or nodule, usually found on the head and neck. The lesion is generally asymptomatic.

We present a case of an osteonevus of Nanta in 42-year-old female, from the facial region with extensive analyses for the mast cells presence and changes in the surrounding matrix. Histological examination showed intradermal melanocytic nevus and mature bone tissue adjacent to or interposed with melanocytic cells, at the base of the lesion. In one of the bone formations central cavitation vas present with fatty marrow elements within. On special stain of Gimsa, mast cells were identified in the stromal matrix.

Conclusion: Osteonevus of Nanta is benign entity, who's exact mechanism of the underlying ossification in not known. Two main hypotheses exist: bone metaplasia and hamartomatous lesion. In bone metaplasia, factors like repeated trauma, chronic inflammation, or melanocytic proliferation induce dermal fibroblasts to become osteoblasts. In the hamartomatous lesion hypothesis, mesenchymal stem cells at abnormal sites differentiate into osteocytes, forming a hamartoma.Osteocytes express estrogen receptors and their activation can promote bone formation, which is possible explanation for higher incidence in women. Finding of osteoid material in melanocytic nevi, contributes to the existence of pathohistological morphological variations of the same. Mast cells secrete various factors that can affect the tumor microenironment, and could attribute to this form of stromal matrix change.

Keywords: Osteonevus of Nanta, oseus metaplasia, benign skin lesions.

SUCCESSFUL FOLLOW-UP OF A YOUNG PATIENT WITH METABOLIC SYNDROME THROUGH LIFESTYLE CHANGES AND MOTIVATIONAL INTERVIEWING

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Metabolic syndrome is a condition characterized by the coexistence of obesity, insulin resistance, hypertriglyceridemia, hypertension, and dyslipidemia (1). In our country, cardiovascular diseases are the leading cause of death, and the prevalence of metabolic syndrome is 32.9% (2). According to the Turkish Endocrinology and Metabolism Society, lifestyle changes are the primary approach to managing insulin resistance in metabolic syndrome, with no specific pharmacological agent recommended (3).

As family physicians, we play a crucial role in supporting lifestyle modifications for these patients. However, achieving sustainable change is challenging for both patients and physicians. A strong physician-patient relationship, regular follow-ups, and motivational interviewing significantly enhance success rates (4).

Our case involves a 37-year-old male with no known chronic diseases, a BMI of 31 kg/m², and blood pressure of 151/96 mmHg. His complaints included fatigue, loud snoring, and poor sleep quality. Blood tests showed fasting glucose of 118 mg/dL, HbA1c of 6.3%, triglycerides of 512 mg/dL, HDL of 38 mg/dL, LDL of 148 mg/dL, fasting insulin of 18 mU/L, and a HOMA-IR of 5.2. He had a 12 pack-year smoking history, regular alcohol consumption, and low physical activity. Initially followed biweekly and then monthly, the patient received an empathy-based, outcome-focused approach. Motivational interviews identified barriers and reinforced self-efficacy, leading to sustainable dietary changes and regular exercise. At the final follow-up, his weight was 81 kg, BMI 26.4 kg/m², blood pressure 119/68 mmHg, fasting glucose 84 mg/dL, HbA1c 5.8%, triglycerides 156 mg/dL, HDL 59 mg/dL, and LDL 129 mg/dL. Fatigue and poor sleep completely resolved. Sustainable lifestyle changes require a multifactorial approach, but a strong physician-patient relationship, structured follow-ups, and motivational support significantly improve adherence and outcomes.

Keywords: Metabolic Syndrome, Motivational Interviewing, Family Medicine

DECUBITUS WOUND IN ACQUIRED IMMUNODEFICIENT PATIENT FOLLOW-UP IN PALLIATIVE CARE CENTERS

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Abstract: Pressure-related skin and soft tissue injuries are among the most common conditions in patients who are hospitalized or require long-term institutional care.Any patient undergoing immunosuppressive therapy is at increased risk for delayed wound healing,chronic wounds, and the development of wound infection,especially in clinical conditions such as organ transplantation and malignancy.In this case, we aimed to describe our patient with immunodeficiency pressure ulcer in our Palliative Care service.

Case: A 60-year-old male patient with Parkinson's disease was diagnosed with HIV in 2020. He regularly uses dolutegravir, tenofovir and L-dopa. He was operated for a Left MCA Aneurysm 6 months before his admission. There was nutritional deficiencies, severe pain and a 10 cm*10 cm wide, hyperemic, anaerobic bacteria-smelling, bone palpable necrotic ulcer in the sacral region. Due to the patient's lack of care, his wound was contaminated with his stool. Hemoglobin: 8.5 g/dL, procalcitonin: 0.76 ng/ml, C-Reactive Protein: 158 mg/L were examined at the patient's hospitalization. In the complete urinalysis, it was seen that Extended Spectrum Beta Lactamase (ESBL) was produced in urine culture with leukocyte +2, leukocyte esterase 2+, nitrite +, and the patient was started with piperacillin-tazobactam 4x4.5 gr IV.

Tramadol 150 mg/day IV palliation was applied to the patient with widespread body aches. Regimen 3 was applied as nutritional support. In addition to the treatment, enteral supplementation with Glutamine Reusorge (containing arginine, glutamine and omega-3) was started.Dail dressing was done from the time of hospitalization.

Discussion:The most effective treatment of pressure sores;It is the effective implementation of preventive interventions such as good skin care, pressure distribution pads,rotation programs and support surfaces. It should be ensured that the skin is clean and dry.Supportive treatment and nutrition are very important in patients with pressure sores,nutritional supplements may be beneficial in patients with insufficient oral intake.

Keywords: immunosuppressive, decubitus ulcer, palliative service

PANNER'S DISEASE

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Introduction: Panner's disease is a rare bone growth disorder affecting the humeral capitellum ossification center of the elbow. It is usually unilateral and most commonly occurs in boys under ten years of age. In 1927, the Danish radiologist Hans Jessen Panner (1871-1930) first described radiographic changes in the capitellum in young adults. Valgus stress and increased axial load are thought to be the main pathogenic factors, typically occurring in activities such as throwing sports and gymnastics. Pathophysiologically, Panner's disease results from disordered endochondral ossification of the capitellum, often due to ischemia caused by the disruption of the vascular supply to the capitellum from repetitive stress. Differential diagnosis includes osteochondritis dissecans and lateral epicondylitis in older children and adolescents. Treatment is usually conservative. The prognosis is generally good, as the condition often heals spontaneously with little to no residual deformity.
Case Description: We present a case of a 9-year-old boy who presented with right elbow pain following minor trauma and was subsequently diagnosed with Panner's disease. Clinical findings included pain and tenderness on the lateral aspect of the right elbow joint, as well as reduced range of motion, especially in extension.The symptoms were aggravated by activity and alleviated with rest. An X-ray was ordered, which showed changes in the morphology of the capitellum, including fragmentation and a radiolucent zone in the subchondral bone with marginal sclerosis. These are the classical radiological features of osteochondrosis of the humeral capitellum. The treatment was conservative, involving rest, restriction of sports activities, ice application for pain relief, and physiotherapy to stretch and strengthen the elbow.
Discussion: Panner's disease is a rare condition that affects the immature, growing skeleton. Early recognition and appropriate management are essential for the successful treatment of this disorder.

Keywords: Panner's disease, osteochondrosis, humeral capitellum

SUBTILE CLINICAL MANIFESTATION OF NON-CONVULSIVE EPILEPTIC STATUS

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The aim is to present a case with subtle clinical manifestation of non-convulsive epileptic status that delayed the diagnosis and proper treatment for 7 years after the onset of the first episode. 21 years old young men complaints of a medical history of episodes lasting for hours manifested with only subtle cognitive disturbances, when he suddenly become slow in verbal communication, with passive behavior, slightly confused and complaints of palpitations. During such episodes he was brought to the emergency cardiologic ambulance, where except ECG findings of sinus tachycardia, no cardiological irregularity was found. Verapamil for oral use was prescribed and recommended. Despite taking verapamil regularly the episodes reappeared, and he did not see any effectiveness from verapamil oral use in the period of about 7 years prior to the final correct diagnosis of episodes of non-convulsive epileptic status. During one such episode he was recommended to see neuropsychiatrist. He went to the emergency neurology ambulance. As it was after midnight his subtle cognitive disturbances were not obvious, and the patient was recommended for EEG under the diagnosis of headache. EEG showed almost continuous discharges of generalized spike-wave complexes of 2,5 - 3,5 Hz. The diagnosis of generalized - absence non convulsive epileptic status (ES) was finally correctly established, emergency treatment with iv benzodiazepine stopped the ES and regular antiseizure medication (ASM) with oral valproate was prescribed with complete seizure control of ES in the next years. EEG should be performed in any case of consciousness and awareness disturbance even when the manifestation is only mild cognitive disfunction, accompanied by vegetative symptoms and signs like palpitations and sinus tachycardia. Appropriate neurophysiological evaluation with EEG and appropriate ASM will prevent future seizures and ES that sometimes may progress to convulsive seizures.

Keywords: nonconvulsive epileptic status, electroencephalography, spike-wave complexes

COMPLETE METABOLIC RESPONSE TO FIRST-LINE CHEMOTHERAPY AND DUAL HER2 BLOCKADE WITH TRASTUZUMAB/PERTUZUMAB IN METASTATIC HER2-POSITIVE BREAST CANCER

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HER2-positive BC accounts for ~20% of invasive breast cancers, exhibiting aggressive behavior and high metastatic potential. The use of dual HER2 blockade with trastuzumab and pertuzumab, in combination with chemotherapy, has significantly improved progression-free and overall survival in patients with metastatic disease. We present a case of a complete metabolic response in a metastatic HER2-positive breast cancer patient treated with first-line systemic therapy.
Case Presentation:
A 69-year-old postmenopausal woman, with no family history of malignancies and a medical history of hypertension, presented with a palpable mass in the right axilla and right breast, without skin changes. Breast imaging (ultrasound and mammography) was categorized as BI-RADS 5. A fine-needle aspiration biopsy confirmed malignancy, leading to a radical mastectomy with axillary dissection on 15.02.2023.
Postoperative histopathology revealed invasive ductal carcinoma, pT2(m) (4.1cm,2cm), pN3a (17/24 positive lymph nodes with extracapsular invasion), Stage IIIC, with ER/PR-negative, HER2-positive (3+), Ki-67 80%.
A postoperative PET-CT (30.03.2023) demonstrated FDG-avid supraclavicular (SUVmax=12.36) and internal mammary (SUVmax=12.1) lymphadenopathy, a metabolically active prepectoral lesion (SUVmax=4.6), and a lytic sacral metastasis (SUVmax=9.0).
On 10.04.2023, the patient commenced first-line chemotherapy with docetaxel (6 cycles) and dual HER2 blockade with trastuzumab/pertuzumab, alongside zoledronic acid.
Interim PET-CT (04.09.2023) revealed metabolic regression in the sacrum and both metabolic and morphological regression of the internal mammary and prepectoral lesions.
Follow-up PET-CT (06.03.2024) demonstrated complete metabolic response, with no evidence of residual or recurrent disease. The patient remains on maintenance therapy with Phesgo, with continued cardiological monitoring (LVEF stable at 64–66%) and scheduled PET-CT follow-up in April 2025.
Discussion: This case highlights the efficacy of Phesgo in achieving complete metabolic response, even in advanced-stage disease.
Conclusion: Dual HER2 blockade plays a crucial role in the long-term management of metastatic HER2-positive breast cancer.
Long-term follow-up is essential to monitor disease control and potential late recurrences.
Keywords: Dual HER2 blockade, HER2-positive BC,Trastuzumab/Pertuzumab

BLUE NEVUS – A BENIGN NEVUS THAT CAN CAUSE THE MOST COSMETIC CONCERN

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Introduction

Blue nevi arise from incomplete migration of melanocytes from the neural crest. The blue color is caused by the Tyndall effect, at shorter wavelengths due to incident light scattered by dermal melanocytes. Blue nevi usually have a blue color of melanocytes that are deeper than those of brown moles. The usual blue nevus is a solitary, bluish macule, papule or plaque with a smooth surface. They are generally round or oval in shape.

Materials - surgical material from the upper arm region

Main part: Macroscopic finding - An elliptical skin section was submitted. On the surface, there is a blue-grayish discolored change above the skin level.

Microscopic finding - Microscopic analysis showed a skin finding with keratinized stratified squamous epithelium on the surface, under which is the dermis, skin adnexa, and in the subcutaneous fat area. At the level of the macroscopically described lesion, there is a thinned stratified squamous epithelium, and intradermally, a nevus is seen, which is built of spindle-shaped cells rich in coarse cytoplasmic melanin pigment, as well as numerous melanophages. The cells are grouped and concentrated around the skin adnexa, but they do not destroy them. They are separated from the epidermis by a layer of subepidermally connected gas. The finding indicates a Blue nevus.

Conclusion - The only treatment is surgical removal of the mole, although this is usually not necessary. Studies suggest that a small percentage of nevi can become malignant, i.e. develop into melanoma. Therefore, they are monitored for changes in the color, size and shape of the nevus. If the doctor suspects that the blue nevus may become cancerous, he may recommend its removal. The patient may also decide to have the blue nevus removed for cosmetic reasons.

Keywords: blue nevus ,benign,melanoma

HANGING HAND

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Introduction: A 52-year-old female patient, with a traumatic injury - a fall from a bicycle, comes for examination due to neck and shoulder pain and inability to raise her right hand and weaker raising of the right hand compared to the left hand.
Case presentation: The following was found during the anamnesis: the patient cannot grasp anything with her right hand, the grip of the hand is weakened, inability to clench the hand into a fist.
During inspection, it was determined:
-impossible abduction and extension of the thumb, impossible dorsiflexion (extension) in the wrist, impossible extension of the fingers (under the influence of gravity the hand falls), impossible extension in the elbow, weakened supination of the forearm, weakened sensitivity in the zone of the first and second metacarpal bone.
The patient shows signs of injury to the peripheral nerve nervus radialis and the appearance of a so-called hanging hand.
Nervus radialis is the largest branch of plexus brahialis.
It arises from the fasciculus posterior and contains fibers from the sixth, seventh and eighth cervical and first thoracic segments of the spinal cord.
Elbow extension, forearm supination, dorsiflexion of the hand, finger extension, thumb abduction are examined. From the drug therapy, corticosteroid, B-group vitamins from a reputable company, analgesics, antirheumatic creams were used for 15 days. At the same time, physical therapy was applied for 10 days. From the physical procedures, ultrasound, laser, tens and manual massage were prescribed.
Conclusions: After fifteen days of medication and ten days of physical therapy, the patient was successfully rehabilitated. Movements were performed in full, sensitivity returned to normal without subjective and objective sensory changes.
Timely diagnosis and timely application of physical therapy lead to complete recovery in patients with signs of lesion of individual peripheral nerves, in this case nervus radialis.
Keywords: hanging hand, peripheral nerve injury, physical therapy

DETERMINATION OF BLOOD GROUPS AND DAT (DIRECT ANTIGLOBULIN TEST) IN NEWBORNS

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Introduction: Blood group is a hereditary characteristic of the erythrocyte surface that can be detected using a specific alloantibody or surface markers of the erythrocyte membrane. DAT (Direct Antiglobulin Test) is used to demonstrate the sensitization of erythrocytes by Ig and/or complement, which has occurred in-vivo. This can occur after Ag-At complexes have formed, for example in some diseases such as autoimmune hemolytic anemia or hemolytic disease of the fetus and newborn.

Objective: To show the number of performed blood groups and DAT of newborns born in the gynecology-obstetrics department at PHI General Hospital Kumanovo" in the period from 2021-2023.

Material: For the needs of the work, cards were used to determine the blood group of newborns (Diacion ABO/Rh for Newborns DVI+, A, B, AB, DVI+, ct), DAT) and data from a book for records of blood groups and DAT of newborns in STM-Kumanovo.

Result: The number of raised croup in newborns and DAT in 2021 is 115, in 2022 it is 118 and in 2023 it is 113.

Conclusion: From the obtained results we see a slight increase from 2022 compared to 2021, but in the last year we see a decrease in the number of newborns in 2023, who were born in the gynecology-obstetrics department at PHI General Hospital "Kumanovo.

Keywords: blood groups, DAT, newborns.

FEMALE PARTICIPATION IN THE BLOOD DONATION PROCESS

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Background: Voluntary blood donation is a very important segment of the healthcare system. In supplying sufficient blood units, various categories of donors are needed. Females are category of blood donors which should be involved more than it is nowdays .
Aim: To show the percentage of total female blood donors, in the voluntary blood donation process, at
The Service of transfusion medicine Kumanovo - Institute of Blood Transfussion Skopje.
Methods: Retrospective analysis of data collected from the annual reports, in which the total number of blood donors are presented. The data from Informatical system E-Delphyn , we also used the notebook were we registreted all the donors.
Results: In 2020 from the total of 955 blood units collected, 175(15,49%) were females. In 2021 from the total of 1132 blood units collected, 220 (16,27%) were females. In 2022 from the total of 1302 blood units collected, 227(14,85%) were females. In 2023 from the total of 1481 blood units collected, 220(12,93%) were females. In 2024 from the total of 1559 blood units collected, 248(13,72%) were females.
Conclusion: Presented data showed that the the number of female blood donors is constant, but it should be increased in the future. Women can maximum donate blood 3 times per year, and often low haemoglobin concentration reduces the number of female blood donations. More targeted blood promoting activities are needed, to motivate female donors, from and through Non-governmental organisations, Red Cross and other female groups , to encourage this particular category to donate blood.
Keywords: blood donation,female ,blood units .

PALLIATIVE CARE PROCESS OF A PATIENT DIAGNOSED WITH HYPERCALCEMIA

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OBJECTIVE: Hypercalcemia is a rare electrolyte disorder where blood calcium levels exceed normal but is more frequently observed in hospitalized and cancer patients. Malignancy-associated hypercalcemia occurs in approximately 20-30% of cancer cases. Hypercalcemia is recognized as one of the few known palliative care emergencies. Since hypercalcemia can be life-threatening and requires urgent intervention, this study highlights its significance in family medicine practice.
METHODS- FINDINGS: A 73-year-old male patient with Diabetes Mellitus presented to the emergency department with altered consciousness, reduced mobility, and decreased oral intake for one month. He was admitted for further evaluation and referred for palliative care due to suspected hypercalcemia and HCC.
The patient had muscle weakness, decreased mobility, reduced oral intake, and altered consciousness. Physical examination revealed impaired orientation and cooperation. Laboratory findings: 10.02.2025 Corrected calcium: 12,57 mg/dL, 12.02.2025 Corrected calcium: 14,05 mg/dL 14.02.2025
Corrected calcium: 14,09 mg/dL
The symptomatic patient was initially treated with fluid replacement. Due to severe hypercalcemia, zoledronic acid was added per oncology recommendations. Palliative care aims to improve quality of life in patients with life-threatening illnesses by managing pain, symptoms, nutrition, and psychosocial support. It addresses both the patient and family, recognizing death as a natural process. It is especially critical for cancer patients, advenced organ failure, neurological diseases, and geriatric conditions.
CONCLUSION:Hypercalcemia negatively impacts quality of life, can be fatal, and increases morbidity risks. It requires close monitoring and multidisciplinary collaboration. Family medicine plays an essential role in disease management, working with palliative care centers and multidisciplinary teams to provide holistic, comprehensive care.
Keywords: Hypercalcemia, Cancer, Palliative

MANAGEMENT OF FOURNIER'S GANGRENE IN A PALLIATIVE CARE PATIENT

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Introduction: Fournier's gangrene (FG) is a necrotizing soft tissue infection of the perineum and external genitalia, associated with high morbidity and mortality. Rapid diagnosis and prompt surgical intervention are crucial for survival. This case highlights the importance of early recognition and multidisciplinary management of FG in a palliative care setting.
Case Presentation: A 75-year-old male with metastatic colon cancer (colostomy, rectovesical fistula) and COPD presented with groin pain, abdominal discomfort, and dysuria for 15 days. He was admitted to the palliative care unit for pain management. Initially, no systemic signs of FG were observed, but scrotal pain and dysuria persisted.
During follow-up, a scrotal abscess developed, leading to urology consultation. Urinalysis revealed 1017 WBC, 43 RBC, and 287 bacteria. Laboratory findings included procalcitonin 1.026 ng/mL, D-dimer 4.61 mg/L, fibrinogen 678 mg/dL, WBC 18.06 $x10^3/\mu L$, neutrophils 16.46 $x10^3/\mu L$, and CRP 253.4 mg/L. Urine and tissue cultures grew Klebsiella pneumoniae. CT imaging confirmed a necrotizing abscess.
The patient underwent emergency surgical debridement, followed by Vacuum-Assisted Closure (VAC) therapy. Empirical antibiotic therapy with meropenem (3x1 g), vancomycin (2x1 g), and clindamycin (3x900 mg) was initiated. Postoperatively, supportive care continued in the palliative unit.
Discussion & Conclusion: Timely diagnosis and aggressive management are essential to improve FG outcomes. The time from diagnosis to surgical debridement significantly impacts survival. This case underscores the role of multidisciplinary collaboration in FG treatment and highlights the importance of palliative care in optimizing patient comfort and quality of life in terminal illnesses.
Keywords: Fournier's gangrene, palliative care, necrotizing infection, multidisciplinary approach

NEAR FATAL BUPIVACAINE ANAPHYLACTIC SHOCK

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Objective: Local anesthetics, such as bupivacaine for spinal anesthesia, are primarily linked to systemic toxicity, known as local anesthetic systemic toxicity, rather than allergic reactions like anaphylaxis shock. Although anaphylactic shock from bupivacaine is extremely rare, it can severely worsen cardiovascular and respiratory symptoms due to spinal anesthesia-induced sympathectomy. This highlights the potential for the situation to become life-threatening and critical.

CASE: A 51-year-old woman was admitted to the traumatology department for a scheduled knee replacement procedure using spinal anesthesia. The patient reported no allergies or comorbidities; however, she was noted to be obese, having a BMI of 35.4 kg/m². Before anesthesia, standard monitoring devices tracked her blood pressure, heart rate, and oxygen saturation, all within normal limits. Under aseptic conditions, she received 3 ml of bupivacaine via a 25-gauge spinal needle at L3-L4 while sitting. She developed anaphylaxis within 5 minutes, presenting with facial/truncal erythema and dyspnea. Initial steroid therapy (methylprednisolone 100 mg, dexamethasone 4 mg) failed to control symptoms, progressing to profound hypotension (60/40 mmHg), bradycardia (34 bpm), and hypoxic respiratory failure. We started Emergency reanimation for cardiorespiratory resuscitation with intubation and IV administration of atropine(2 mg), epinephrine(2 mg), and ephedrine (30 mg total) . Post-stabilization, continuous infusion of midazolam for sedation and ICU transfer was done.

The surgery was postponed, and in the interim, cranial and chest CT scans, including pulmonary angiography, were performed. The scans were completed without any symptoms so wake up procedure was started,

The patient was extubated on the second postoperative day and resumed spontaneous breathing without significant health changes.

Conclusion: This complex scenario presents significant anesthesiology challenges requiring rapid case recognition and resuscitation planning. We identified cutaneous erythema as a critical indicator linking anaphylactic manifestations to bupivacaine exposure, enabling the diagnosis of bupivacaine anaphylaxis.

Keywords: bupivacaine, anaphylaxis, reanimation

MANAGEMENT OF MULTIORGAN FAILURE FOLLOWING LIMB AMPUTATION DUE TO GAS GANGRENE AND SUBCLAVIAN ARTERY THROMBOSIS

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Introduction: Subclavian artery thrombosis occurs in less than 1% of the population, making symptomatic cases rare and often underdiagnosed. It can lead to ischemia and, if untreated, subsequent tissue necrosis, including gas gangrene. This case presents the clinical management of a patient who developed multiorgan failure and required limb amputation due to subclavian artery thrombosis complicated by gas gangrene.
Case presentation: A 44-year-old male presented in septic shock with hypotension, tachycardia, and peripheral oxygen saturation of 82%. He had gangrene in four fingers of his right hand, which had developed after 20 days of ischemic pain following a fall one month earlier. Angiography revealed occlusion of the subclavian, axillary, and brachial arteries and thrombolysis failed to resolve the issue. CT angiography confirmed severe arterial occlusion, and subtotal amputation of the right arm was performed. Early amputation on the second day of admission was life-saving. Regardless of the early surgical approach, the patient's clinical state worsened, resulting in complications such as acute kidney injury (AKI), respiratory insufficiency and acute gastrointestinal bleeding. The use of continuous veno-venous hemodiafiltration (CVVHDF) with the Oxiris filter was crucial in the patient's treatment.
Disscussion: Early limb amputation, combined with the use of continuous renal replacement therapy, specifically veno-venous hemodiafiltration (CVVHDF), was essential for stabilizing the patient. Despite challenges, such as persistent hypotension, gastrointestinal bleeding, and the need for multiple sessions of CVVHDF, the patient's condition steadily improved.
Conclusion: This case underscores the importance of a multidisciplinary approach, with CVVHDF playing a crucial role in managing the inflammatory cascade and supporting the patient through the most critical stages of sepsis and multiorgan failure.
Keywords: septic shock, gas gangrene, subclavian artery thrombosis, veno-venous hemodiafiltration, amputation, multi-organ failure

ANESTHETIC CONSIDERATIONS IN A PATIENT WITH CERVICAL SPINE SURGERY HISTORY UNDERGOING LAPAROSCOPIC CHOLECYSTECTOMY

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This case report presents the anesthesiological management of a 68-year-old male patient undergoing laparoscopic cholecystectomy for recurrent acute cholecystitis. The patient has a significant surgical history, including a cervical spine operation in 2022, following a diagnosis of quadriparesis, spinal stenosis (C4-C5), and polydiscopathy of the cervical region. The previous surgery involved anterior decompression, C5 corpectomy, C4 hemicorpectomy and hemiforaminectomy, transpedicular fixation from C4-C6, and the application of a MESH. Despite the successful operation, the patient continued to experience paresthesia in both the upper and lower extremities, requiring the use of crutches for mobility. A subsequent neck x-ray revealed ventral marginal osteophytes of the cervical vertebral bodies.

Given the patient's cervical spine pathology and residual neurological deficits, particular caution was necessary during the anesthesiological evaluation and planning for intubation. The patient had a Mallampati score of 2, a thyromental distance greater than 6 cm, and no significant dental abnormalities. Neck mobility was preserved, and there were no additional contraindications for standard intubation techniques. However, the residual paresthesia and history of spinal surgery warranted close monitoring and careful positioning during anesthesia to avoid potential spinal cord or nerve impingement.

This case underscores the importance of thorough preoperative assessment and tailored anesthesiological strategies in patients with complex spinal histories, particularly when surgical procedures are being performed in anatomically and neurologically sensitive regions.

Keywords: anesthesia, cervical spine surgery, intubation

PROFESSIONAL BRONCHIAL ASTHMA FOUND IN A WORKER IN LEATHER INDUSTRY

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Introduction: Professional bronchial asthma (PBA) is caused by specific agens from the working enviroment, it is reversable obstruction of the respiratory system which is caused by dust, gas, steam and smoke from the working enviroment.
Descripton: 45 years old patient, has been observed, taylor in a leather industry with 10 years working experience. The patient has suffered from dry cough for 5 years, hard breathing, missing air, expectorate white glued secretion, lungs sound, tightening and repression.
Directed examinations has been done, including clinical auscultatorn diagnosis of the lungs, alergicy skin tests with standard inhalation and specific professional alergens following prick method, total IgE, laboratory and hematological analyzes and functional lungs monitoring. Special place in the evaluation of PBA exsisting has the positive working anamnesis, exposition and elimination test, spirometry, non-specific bronchoprovocative test with Metaholin, functional lungs monitoring before and after the work with spirometry, as wen as PEF monitoring (the largest expiratory flow), with pursuance of the FEV1 value, before and after bronchoconstriction and after the bronchodilatation. After inhalation of 5000gama Metaholin, auskultator and spyrografic diagnosis changed inasence of bronchoconstriction. FEV1 value lowered for more than 20% hyperactivity wag registered in the breathing chanel. With bronchodilatator inhalation, FEV1 value increased for more than 15% therefore positive bronchodilatatoren test with Ventolin was confirmed.
Conclusion: It is necessary to have prevention on time with a control of the enviroment (ecological monitoring), early detection of the symptoms and signs of the disease, timely halt of the exposion and prevention of the development of the disease as wen as appropriate therapy and rehabilitation of the diseased with PBA.
Keywords: leather industry, prick test, ventilation function.

MANAGEMENT OF ANTI-M ANTIBODY DURING PREGNANCY - CASE REPORT

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Background: Anti-M is a relatively common naturally occurring antibody reacting optimally at 4°C and weakly or nonreactive at 37°C. It is usually clinically insignificant but can be active at 37°C because of thermal amplitude of IgM component or presence of IgG component. Alloimmunization due to anti-M antibodies are rare since IgM antibodies do not cross the placenta. Very rarely, these may convert to immunoglobulin G antibodies and cause hemolytic disease of the fetus and newborn. We present the case of a gravida, with previous miscarriage, booked with us the 12 week of pregnancy for Indirect Antiglobulin Test (IAT).

Objective: To review the general guidelines and propose a less intensive management approach of anti-M antibody during pregnancy through the context of a case report.

Methods: We report a 32-year-old pregnant woman presenting for antepartum care. She was found to have a positive IAT, and with further testing was identified anti-M antibody, active at 37°C, IgG class. The antibody titer was being monitored serially and was stable at 1:64 throughout pregnancy. At 37 weeks titer got 1:128 and in consultation with gynaecologist she was prepared for delivery.

Results: She birthed a healthy-term infant, at 37+5 weeks without complications. The baby had no signs of heamolysis and anemia, and no therapy was needed.

Conclusion: Anti-RBC antibodies, including anti-M, are frequently identified in blood type and screening for pregnant patients. Guidelines call for intensive surveillance during pregnancy; however, knowledge of the specific antibody can help to provide more nuanced and less intensive care. The maternal antibody titers may not be a true reflection of the severity of fetal affection.

Keywords: alloimunization, anti-M antibodies, HBFN

EFFECTS OF MIRROR THERAPY ON PARETIC UPPER LIMB AFTER STROKE

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Background: Mirror therapy (MT) is used to improve motor function after stroke. MT has been studied to have effects not just on motor impairments but also on sensations, visuospatial neglect, spasticity and pain after stroke. During mirror therapy, a mirror is placed in the person's midsagittal plane, thus reflecting movements of the non-paretic side as if it were the affected side.

Aim : Evaluation of the effects of MT on upper limb impairments after stroke.
Case presentation: A 57 years old woman with right hemiparesis, 2 months after ischemic stroke presented with severe motor weakness, pain, spasticity, without hemineglection and sensory impairments. Treatment was carried out with MT and conventional therapy .
MT was administered in 30-min sessions, five days a week, for four consecutive weeks. MT consisted in performing unilateral or bilateral movements, observing movements and relaxing postures of the unaffected arm, executing functional tasks, while watching the image of the unaffected limb reflected by a mirror superimposed to the affected limb. The clinical outcome was assessed using the numeric pain rating scale (NPRS-11), Fugl-Meyer assessment (FMA) , Modified Ashworth scale(MAS), before and after the intervention, and at 3 months follow-up.
Results: After the four weeks of MT, the patient demonstrated 3 points reduction in pain on NPRS-11,spasticity reduction from 2 to 1 on MAS, improvement in motor function from 15 to 58 (66 normal motor function) on FMA. At 3 months follow-up, the results were maintained.
Discussion: MT is a simple and economical neurorehabilitation technique that can stimulate the brain non-invasively. MT is a feasible method for training post-stroke impairments (motor, sensory, perceptual deficits) in all phases.

In response to MT, numerous brain areas are harnessed to induce favourable neuroplasticity and associated motor recovery.MT may reorganize the damaged brain and balances the activity of both the hemispheres.

Keywords: mirror therapy, upper limb, stroke

CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN A GARMENT WORKER

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Introduction: Chronic obstructive pulmonary disease (COPD) is a condition characterized by decreased airflow that is not fully reversible. The reduction in airflow is usually progressive and associated with an abnormal inflammatory response of the lungs to various harmful particles or gases.
Case Report: A 52-year-old patient was observed, a garment worker with a working experience of 30 years. He has been a smoker for 35 years and smokes 20 to 30 cigarettes per day. He is exposed to dust, irritants, and increased air humidity. He has a history of more than 10 years of frequent irritating cough, shortness of breath with a feeling of hunger for air, which is more pronounced during exertion, coughing up white sticky secretions, wheezing, chest tightness, choking, and a feeling of fatigue. A work history was taken, a clinical examination was performed, and the first phase of respiratory function was examined - pulmonary ventilation with spirometric testing based on the principle of functional monitoring and oximetry, the serial PEF-metry test was applied, bronchodilator reversibility testing and laboratory tests, ECG, chest X-ray were performed. The current spirometric finding indicates a combined, predominantly obstructive type of ventilatory failure of moderate to severe degree, with reduced flow in the small airways. The values of the measured spirometric parameters are: FEV1 35%, FVC 58%, FEV1/FVC 64%, PEF 42%, and the saturation is SpO2 92,3 %. The bronchodilator test is negative.
Conclusion: Timely prevention with environmental control (ecological monitoring) is necessary, quitting smoking and eliminating or reduction of exposure to various substances in the workplace are mandatory. Secondary prevention, through monitoring and early detection, is also important, as well as regular preventive health check-ups for employees.
Keywords: smoking, spirometry tests, garment worker, bronchodilator test

DIARRHEA MANAGEMENT OF A PALLIATIVE CARE PATIENT WITH PRESSURE ULCER

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Introduction

Although constipation is more frequently seen among palliative care patients due to the use of opioid analgesics, diarrhea may also occur, though less commonly. Patients with uncontrolled diarrhea are at increased risk for dehydration, electrolyte imbalance, skin breakdown, and fatigue. This study aims to assess a patient with immobility, pressure ulcer, comorbid conditions, and symptoms of diarrhea.

Case

The 87-year-old female patient has a history of bypass surgery, cerebrovascular events, hypertension, atrial fibrillation, chronic kidney failure, and a pressure ulcer with surrounding maceration on the sacrum. She also has a stage 4 pressure ulcer on the right trochanter with seropurulent discharge and a pressure-related ulcer on the heel. The patient is immobile, receiving nutritional support and pain management in the palliative care unit, with feeding provided via percutaneous endoscopic gastrostomy (PEG).

The patient developed watery stools and elevated acute-phase reactants. Although no pathogens were detected at the stool, leukocytis were present. All the medications were revealed, physical exam and radiographs performed to rule out the drug related diarrhea and impaction or an obstructed bowel. Suspecting antibiotic-associated diarrhea, ornidazole (500 mg twice daily for 7 days) was administered, leading to reduced acute-phase reactants and decreased stool frequency. Moreover, the diarrhea symptoms resolved after changing the patient’s nutritional product. Skin moisture was controlled and wound care was maintained safely during all the process.

Discussion and Conclusion

Dehydration and electrolyte imbalances caused by diarrhea leads to deterioration of the patient's general condition and may also contribute to skin dryness. Dry skin, excessive moisture, or increased contact with feces can formation of pressure ulcers and also delay their healing. Moisture from diarrhea can lead to skin maceration and irritation, weakening the skin’s protective barrier and facilitating microbial invasion. Therefore, effective management of diarrhea is crucial among immobilized palliative care patients.

Keywords: Pressure Ulcer, Diarrhea, Palliative Care

AZITRHOMYCIN INDUCED SYMMETRICAL DRUG-RELATED INTERTRIGINOUS AND FLEXURAL EXANTHEMA IN 2-YEAR-OLD BOY

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Symmetrical drug-related intertriginous and flexural exanthema (SDRIFE), commonly known as Baboon Syndrome, is the most recognizable form of the often under-recognized condition - systemic contact dermatitis (SCD). It clinically presents as sharply demarcated, symmetrical erythema on the buttocks and other intertriginous or flexural sites, in the absence of any other systemic signs or symptoms. The reaction occurs after a systemic administration of a drug (at the first or subsequent doses) in non-sensitized individuals and usually manifests after 2, up to 4 days, after exposure to the sensitizing drug. The diagnosis is clinical and involves fulfilling five well-defined criteria.

We hereby report a 2-year-old boy with an upper respiratory tract infection who was treated with oral azithromycin. By the third day, sharply demarcated, symmetrical erythematous patches with slightly raised edge appeared on the gluteal region, without pruritus or systemic symptoms. From differential diagnoses contact dermatitis and infectious exanthema were excluded. Azithromycin was discontinued and supportive care was provided, leading to resolution of the condition within five days.

SDRIFE represents a rare drug reaction with a higher incidence in the past decade and a poorly understood pathogenesis that has yet to be investigated. Withdrawing the eliciting drug is the cornerstone of therapeutic management. Therefore, early diagnosis is important when dealing with similar disorders and helps prevent possible re-exposure to the sensitizing allergen, avoids its generalization and in the same time reduces the use of unnecessary or excessive therapeutic modalities.

Keywords: SDRIFE; Baboon syndrome; azithromycin.

SUCCESSFUL MANAGEMENT OF HER2-POSITIVE EARLY BREAST CANCER AT THE UNIVERSITY CLINIC FOR RADIOTHERAPY AND ONCOLOGY, NORTH MACEDONIA

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A 45-year-old female with no significant medical history presented with a palpable lump in the right breast. Imaging confirmed a 2.3 cm irregular mass with axillary lymph node involvement. A biopsy revealed invasive ductal carcinoma, HER2-positive (IHC 3+), ER-negative, PR-negative, with a Ki-67 index of 30%. Staging was determined as cT2N1M0 (Stage IIa).
She underwent neoadjuvant therapy: paclitaxel in combination with dual antiHER treatment trastuzumab-pertuzumab. The patient demonstrated an excellent clinical response, with imaging showing significant tumor shrinkage before surgery.

Breast-conserving surgery with sentinel lymph node biopsy revealed a complete pathological response. Adjuvant therapy included the continuation of trastuzumab + pertuzumab. to complete one year of HER2-targeted treatment along with regional radiotherapy.
At the 12-month follow-up, the patient remained disease-free with no evidence of recurrence and reported only mild fatigue as a side effect. This case underscores the high efficacy of neoadjuvant treatment in HER2+ early breast cancer and highlights the importance of multidisciplinary collaboration in treatment optimization.

Keywords: HER2-positive breast cancer, neoadjuvant therapy, early breast cancer

PSYCHIATRIC CHALLENGES IN THE DIAGNOSIS OF FRONTOTEMPORAL DEMENTIA: NAVIGATING OVERLAPPING SYMPTOMATOLOGY

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Introduction: Frontotemporal dementia (FTD) is a group of neurodegenerative disorders characterized by progressive atrophy of the frontal and temporal lobes of the brain, leading to significant changes in behavior, personality, and language abilities. Unlike other dementias, FTD often affects individuals at a younger age, typically between 40 and 65 years old . The disease is clinically heterogeneous (bvFTD/PPA), characterized in the frontal variant by prominent personality change, including disinhibition and social indiscretion or profound apathy, and temporal lobe variants by language impairments. It is often undiagnosed or mistaken for psychiatric illness. Currently, there is no cure for FTD, and treatment remains symptomatic. Aim: This case aims to illustrate the complex clinical presentation, diagnostic challenges, and disease progression of a patient with frontotemporal dementia. Materials and methods: A 64-year-old female patient with a history of psychiatric difficulties dating from around a decade ago manifested with depressive symptomatology. In the following years, she developed behavioural symptoms, confusion, agitation, subjective somatic complaints, disturbed sleep and appetite, lack of motivation and interest, and delusions. Psychiatric treatment started at the age of 52 due to depressive symptomatology. Throughout the years, she was diagnosed with the following diagnoses in compliance with ICD-10: F41.2, F33.3, F22, and F07.9. During the first hospital stay, she was treated with antipsychotic, antidepressant, and anxiolytic therapy, similar to the second hospital stay, combined with an NMDA-antagonist and anticholinergic with a multidisciplinary approach, leading to improvements in her physical health, psychological state, and overall functioning. Conclusion: This case highlights the importance of recognizing the diverse clinical presentations of FTD and the overlapping symptoms with other dementias and psychiatric disorders. Early recognition of its distinct clinical and imaging features is crucial for accurate diagnosis and appropriate management.

Keywords: Frontotemporal Dementia, overlapping symptoms, treatment challenges.

A 16 YEAR OLD BOY WITH SYSTEMATIC JUVENILE IDIOPATHIC ARTHRITIS

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CASE PRESENTATION: The systemic juvenile idiopathic arthritis with the adult form of Still's disease make Still's syndrome, a rare systemic inflammatory disorder with annual incidence between 0.1-0.4 per 100 000 people in Europe. The etiology remains unknown, however various infectious agents may act as a trigger in individuals with genetic predisposition. Our case report is about 16 year old boy, who has an identical healthy twin. The patient presented spiking fever (up to 42 degrees Celsius), pain and limited mobility in shoulders, knees and thighs, pink maculopapular skin rash, lymphadenopathy, pleural and pericardial effusion. In the laboratory findings it presented with anemia, leucocytosis (up to 50 000), high sedimentation rate, very high levels of CRP (up to 358), increased procalcitonin (up to 11,7), very high levels of ferritin (up to 11588), increased hepatic markers. He was treated in the University Clinic of Infectology in Skopje, where CT scans, echocardyography, histopathology of the enlarged lymph nodes, microbiological analyses, serological analyses, PET Scan were made. He was treated with various antibiotics with no effect. After one month of no progress, the diagnosis of systemic juvenile idiopathic arthritis was made, according to Yamaguchi diagnostic criteria. The treatment was with corticosteroids, high doses of NSAIL and methotrexate as an antimetabolite. The significant effects of the treatment were seen after 2 months with decreasing number of symptomatic episodes, which ceased after 6 months The corticosteroids were given for 8 months with decreasing dosage, and methotrexate was given for a total of 18 months. In the present day, the boy does not take any medication for 6 months and has shown no signs of disease.
Keywords: Systemic juvenile idiopathic arthritis, methotrexate

A COMPLEX CASE OF DEPENDENT PERSONALITY DISORDER WITH CO-MORBID AGORAPHOBIA, PANIC DISORDER, AND DEPRESSION: AN ICD-11 PERSPECTIVE

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Personality disorders are highly prevalent [1] and associated with increased morbidity, mortality, and substantial societal costs, making their diagnosis and treatment relevant to all healthcare practitioners [2,3]. The ICD-11 employs a dimensional approach to the classification of personality disorders, which focuses on the severity level and specifies diagnosis with five trait qualifiers [4]. Our aim with this case report is to analyze and present the trait domain specifiers of an individual with Dependent Personality Disorder according to the traditional ICD-10 PD classification and facilitate the adoption of the new diagnostic criteria.

A 29-year-old man presents to the day hospital with severe agoraphobia, panic disorder, binge eating, and obesity (BMI=49.2 kg/m^2). He cannot leave home without his mother and experiences intense fear unless near a hospital or a car. The severity of his symptoms has led to significant functional impairment - discontinuation of his studies and social isolation. On initial assessment, he showed elevated scores on psychiatric rating scales (HAM-A=45, HAM-D=28, BPRS=35), which indicates severe anxiety, depression, and overall psychopathology. This patient meets the criteria for Dependent Personality Disorder and Agoraphobia: with Panic Disorder, according to ICD-10. Assessments of trait domains were made with PSQ-11, which demonstrated an increase in negative affectivity, detachment, disinhibition, and anankastia. Mild personality disorder was obtained on the Rating Scales for Severity of Disorder (SASPD, LPFS-BF 2.0). A multidisciplinary approach combining pharmacological and psychosocial interventions was employed, which led to a successful reduction in his symptoms and scores on rating scales (HAM-A=31, HAM-D=17, and BPRS=30).

This case demonstrates that personality disorders can be categorized based on common trait domain specifiers, which enables alignment of the diagnosis with ICD-11 criteria. Assessing the severity of the personality disorder has a significant impact on treatment planning and prognosis.

Keywords: Dependent personality disorder, agoraphobia, ICD-11 dimensional model of PD classification

PATIENT WITH THROMBOPHILIA AND PULMONARY EMBOLISM

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Introduction: Thrombophilia describes a propensity for developing thrombosis owing to the presence of hereditary and/or acquired prothrombotic abnormalities. There are two types of thrombophilia: inherited and acquired. The most common acquired thrombophilia is antiphospholipid syndrome. It is also the most aggressive thrombophilia.
Case report: We present a 43 years old male patient diagnosed with pulmonary embolism (PE) in March 2023 who was treated at the University Clinic for Pulmonology and Allergology. He came for the first time in the outpatient department of the Institute for transfusion medicine in Skopje one year after diagnosing the pulmonary embolism. The patient was anticoagulated with direct oral anticoagulant (DOAC) - Rivaroxaban 20 mg prescribed by the pulmonologist. Tests for thrombophilia, antiphospholipid antibodies (aPA), lupus anticoagulant (LA), D-dimer and anti Xa assay were ordered. The results detected heterozygosity for FII, ITGA2, MTHFR, MTR, positive antiphospholipid antibodies and lupus anticoagulant, and unsatisfied therapeutic response to Rivaroxaban 20 mg. The treatment with Rivaroxaban was interrupted and the patient was switched to vitamin K antagonists (VKAs) - Acenocoumarol. He is our regular patient for following up the INR and dosing the Acenocoumarol with no recurrent episode of thrombosis until now.
Disscusion: The long-term anticoagulant treatment of patients with pulmonary embolism is aimed at preventing recurrent venous thrombembolism events (VTE). Risk stratification of patients with unprovoked PE is complex. The following risk factors may help identify patients at higher long-term risk (relative risk 1.5–2.0) of VTE recurrence: one or more previous episodes of VTE; antiphospholipid antibody syndrome; hereditary thrombophilia; male vs. female sex; and residual thrombosis in the proximal veins.
Conclusion: For patients with unprovoked PE and thrombophilia, the general approach is long-term anticoagulation with DOACs or VKAs.
Keywords: Thrombophilia, DOACs, VKAs, PE

THE GOLDEN HOUR: HOW RAPID TPA ADMINISTRATION LED TO A REMARKABLE STROKE RECOVERY

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Background: Intravenous thrombolysis with tissue plasminogen activator (tPA) is the gold standard for acute ischemic stroke (AIS) management, significantly improving outcomes when administered promptly. Early intervention within the “golden hour” minimizes disability and facilitates reintegration into daily life and employment. This report presents two cases of young, working-age males who experienced stroke while on duty and achieved full neurological recovery following timely thrombolysis.

Case Description: A 32-year-old construction worker developed sudden right-sided weakness and dysarthria at work. His only notable medical history was a patent foramen ovale (PFO). A 41-year-old waiter experienced acute left-sided weakness and facial droop during his shift, with a history of hypertension and diabetes mellitus. Both patients were transported by emergency services, arriving within the therapeutic window. Initial NIHSS scores were 6 and 8, respectively, with normal CT scans and laboratory values permitting thrombolysis. tPA was administered within 45 minutes in the first patient and within 1 hour and 30 minutes in the second, leading to rapid neurological improvement. By discharge, both had NIHSS scores of 0, resumed full functionality, and returned to work.

Conclusion: These cases highlight the transformative impact of early thrombolysis in AIS, particularly in young professionals. Despite differing stroke mechanisms, rapid intervention facilitated full recovery. Stroke recognition, prehospital efficiency, and protocol adherence remain critical. Recent evidence supports intravenous thrombolysis in young adults, demonstrating excellent outcomes and reinforcing its priority in stroke management.

Keywords: acute ischemic stroke, thrombolysis, tissue plasminogen activator, young adults, stroke recovery, early intervention, neurological outcome

TUBERCULOUS MENINGITIS: AN OLD ENEMY STILL LOOMING

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INTRODUCTION: Tuberculosis remains a major global health challenge, caused by Mycobacterium tuberculosis. Tuberculous meningitis (TBM) is a severe form of extrapulmonary tuberculosis, characterized by inflammation of the meninges surrounding the brain and spinal cord.

CASE REPORT: We present a case of 23-years-old female patient who developed symptoms that began two weeks before admission, including fever, headache, reduced appetite, photophobia and nausea. She initially presented to a private hospital, where CT scan of the thorax and MRI of the brain were performed, both showing multiple granulomas. She was subsequently referred to a neurologist and infectious disease specialist and lumbar puncture was performed. Cerebrospinal fluid (CSF) analysis showed moderate pleocytosis with lymphocytic predominance and a positive GeneXpert MTB/RIF result, confirming the presence of Mycobacterium tuberculosis. Due to the need for specialized treatment and further management, the patient was transferred to our clinic where the diagnosis was confirmed. She had no underlying immunosuppressive condition, such as HIV infection or malignancy. As part of her past medical history, she was treated for pleuritis one year ago with third-generation cephalosporins. The diagnosis was based on clinical findings, and no further investigations, such as pleural fluid analysis, were conducted. On examination, the patient was afebrile with normal vital signs and positive meningeal signs. Neurological assessment showed cognitive slowing and delayed response to questions. The patient was started on a regimen of specific anti-tuberculous medications, including isoniazid, rifampin, pyrazinamide and ethambutol. After four weeks of treatment, a follow-up MRI showed regression of the granulomas. The patient was discharged from the hospital in good clinical condition with normal CSF findings.

CONCLUSION: Tuberculous meningitis is life-threating condition, often leading to significant morbidity and mortality. Early detection through CSF analysis and molecular testing, combined with prolonged anti-tuberculous therapy and adjunctive corticosteroids, is crucial for improving prognosis.

Keywords: Mycobacterium tuberculosis, Tuberculous meningitis, medications

THE COURSE OF BIPOLAR AFFECTIVE DISORDER DURING VULNERABLE LIFE PERIODS

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Introduction: Bipolar disorder represents a second-ranked illness by the number of days out of role. Stressful events are associated with fluctuations in mood in a primarily healthy person, but they can be a trigger for exacerbation of affective disorders too, such as bipolar disorder. Its recurrent and chronic course, as well as young adulthood onset makes it challenging to prevent and predict further episodes.
Aim: This case report aims to illustrate the therapeutic challenges and effectiveness of multidisciplinary approach in a 39 years old female patient with bipolar disorder and tentamen suicidii, in a Day hospital settings.
Materials and methods: The onset of symptoms dates back to adolescence, with episodes of mania and depression. Up to this date, it was treated regularly in out-patient and few times in hospital settings due to aggravation of affective and psychotic symptomatology, especially in perinatal period. The current admission in our Day hospital department is as a follow-up after 15-days in-patient treatment of depressive episode accompanied with suicide attempt. By the anamnesis, it is linked to a stressful period for the patient. During her stay, she was treated with antidepressants, antipsychotics and mood stabilizers. She regularly participated in a group-therapy sessions for supporting mothers and pregnant women; psychosocial interventions were performed as well. It all led to noteworthy improvements with reducing of depressive symptomatology, remission of suicidal ideation, euthymic mood and proper functioning on a personal and parental level.
Conclusion: This case emphasizes the course of bipolar affective disorder during vulnerable periods of patient's life, highlighting the importance of a directed structured interview in clinical assessment and developing a therapeutic alliance for long-term treatment adherence.
Keywords: bipolar disorder; suicide attempt; pregnancy; perinatal period; Day hospital;

PROSTHODONTIC TREATMENT WITH DIGITAL CAD-CAM TECHNOLOGY OF TRAUMATIC DENTAL INJURY IN FRONTAL MAXILLARY REGION

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Introduction: Sport plays an important role in physical and mental health, but also carries a risk of injuries. Dental traumatic fractures in esthetic region are mostly unanticipated event that pose serious consequences for the patient on esthetic function and psychological aspect. The most common cause of dental injury are participation in sport activities, car crashes, foreign body hitting the teeth.

Objectives: The aim of this case is to present the esthetic rehabilitation of injured maxillary teeth of female football player during football training session.

Case report: The female football player, 25 years old came to the Department of Prosthodontic with fractured tooth 21. The patient reported history of fall during football training session. The clinical and radiographic examination showed need for revision of endodontic treatment of tooth 21, and application of fiber-glass post and designing zirconia crown with digital CAD-CAM technology followed after.

Results: Excellent esthetic and function of the final translucent zirconia restoration for patient and doctor satisfaction.

Conclusion: Dental traumatic injury in frontal region are very serious dental problems, especially for the young people whom esthetic is playing very important role. Esthetic rehabilitation using digital CAD-CAM technology and modern materials such as translucent zirconium oxide ceramic plays very significant role in solving these challenge. Education of the patient who takes part in sport activities like football enables prevention and reduction of dental injuries.

Keywords: traumatic injury, front maxillary region, zirconia crown, CAD-CAM

PROSTHODONTIC THERAPY OF DENTAL EROSION IN PATIENT WITH GASTROESOPHAGEAL REFLUX DISEASE. CASE REPORT

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Introduction. Dental erosion is defined as the loss of tooth structure due to a multifactorial chemical process that does not involve bacterial action. Erosion may be due to extrinsic sources of acid, such as acidic foods, drinks, and acidic medications. Gastroesophageal reflux disease (GERD) is the most common source of dental erosion, where the cause this erosion can be a chronic regurgitation of gastric acid in patients, resulting in extensive loss of coronal tooth tissue.
Case report. This clinical report describes prosthetic approach to tooth erosion caused by GERD in 65 years old male patient. After the medical treatment of GERD we made preparation of the teeth and provisional restoration where the vertical occlusal dimension was reestablished. After three weeks wearing without discomfort and difficulty in function we fabricated full mouth restoration – metal-ceramic fixed partial dentures for both mandibular and maxillary arches, cemented with glass-ionomer cement.
Discussion and conclusion. GERD very often is a reason for dental erosion and loss of tooth tissue. Dental rehabilitation should follow the medical treatment and elimination of the acid reflux. After medical control of GERD, the patient's dentition was restored to correct form, function, and esthetics with metal-ceramic fixed partials dentures with a long-term prognosis.
Keywords: erosion, gastroesophageal reflux, prosthodontic therapy

ACCIDENTAL FIREARMS FATALITIES DURING HUNTING

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Accidental gunshot fatalities can be challenging because the basic difference between accidents on the one hand and suicides or homicides on the other, is the intention of the person shooting which can be difficult to determine in retrospect. In gunshot fatalities, a reconstruction of the events can be possible on the basis of a detailed analysis of available elements.
In the presented case, a 53-year-old father and his 31-year-old son were hunting wild boars. The father reported that the son sustained a gunshot wound during the hunt, which he inflicted on himself and which caused his death on the crime scene. The ambulance arrived an hour later and confirmed the son's death. The police conducted an on-site investigation. The next day, an autopsy was performed, and it was determined that the deceased son had four gunshot wounds caused by four pellets. The cause of death was gunshot wounds to the chest area. Toxicological tests were negative. Based on the entry wound of the gunshot wounds, the number of gunshot wounds, the proximity from where the shot was fired, and the direction of the pellets' movement, it was determined that the son could not have injured himself and that the shooting was done by another person. Four days later, the father admitted that he had fired and hit his son. It was determined to be an unfortunate accident."
In cases of accidents involving gunshot wounds, we should never rely solely on the statements of those involved in the incident. A thorough investigation, a detailed and accurate forensic autopsy, and a quality police investigation should always be conducted. Only in this way can the truth be uncovered, and the criminal responsibility of the individuals involved in the event be determined.
Keywords: hunting, accidents, autopsy

DRESS SY REPORT AND LITERATURE REVIEW

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Drug reaction with eosinophilia and systemic symptoms (DRESS) is a rare, potentially life-threatening, drug-induced hypersensitivity reaction characterized by a cutaneous eruption, hematologic abnormalities, lymphadenopathy, and/or internal organ involvement. The most of DRESS cases are due to antiseizure medications, alopurinol, antibacterial sulphonamides, minocycline and vancomycin. We presented a case of 70-year old women with maculopapulose rash affecting face, abdomen and extremitas, generalised pruritus, ulcero-crustos lesion on the mouth and mucopurulent conjunctivitis with a 1 week of duration. She has recently diagnosed hyperuricaemia and had been trated with allopurinol for 4 weeks. During the hospital stay the rash become more intensive also the mucosa involvement in oral and ocular area was worstenen.The drug Allopurinol was immediately excluded the patients was given 100 mg prednisolone daily with tapering in total time of 2 months,anticoagulant therapy,antibiotics,localy emulsion of low potential steroids, antiseptic and antimycotic localy for the oral mucosa and antibiotic solution and natural tears for the eyes.In total time of 2 months the rash completely regressed also the liver enzymes was in normal rang.

Keywords: DRESS sy,eosinophilia ,medications

SCLERODERMA-LIKE LUPUS ERYTHEMATOSUS PANNICULITIS RARE SUBTYPE OF RARE VARIANT OF CUTANEOUS LUPUS

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Introduction: Scleroderma-like Lupus Erythematosus Panniculitis (SLEP) is an exceedingly rare form of Lupus erythematosus panniculitis (LEP). Only 6 cases have been published worldwide. SLEP shares both clinical and histopathological features between LEP and morphea. This report describes additional case of SLEP with long-term follow-up and compares them with the cases reported to date.

Case report: In 2020, a 35-year-old Macedonian female patient presented with painful, deep, firm, erythematous-violaceous plaques measuring 4x2 cm in size on the right infraorbital area, in addition to the concomitant coexistence of morphea-like lesions on the upper right arm and thigh. The biopsy, obtained from the infraorbital region, revealed orthokeratotic epidermis, reduced granular layer, atrophic Malpighian layer, and sclerodermoid dermal thickening with collagen fibrosis. Immunological tests were negative for ANA-Hep2, anti-dsDNA, anti-SSA, anti-SSB, and RF, with normal levels of C3, C4, CBC, and ESR.

In the next 5 years, the infraorbital lesions remained persistent, with periodic exacerbations and remissions, while the morphea-like lesions regressed after 3 months, leaving only subtle residual hypopigmentation. No signs of SLE or systemic sclerosis were observed. The pathological finding of sclerodermoid collagen bundle thickening raised the hypothesis of either the concomitant coexistence of lupus panniculitis and morphea or that the infraorbital lesion represents a rare manifestation of SLEP. Additionally, we collected and analyzed all published SLEP cases reported in the literature up to March 2025 and compared them with our case.

Conclusion: Skin manifestations associated with systemic diseases share many clinical, serological and histopathological attributes making their differential diagnosis a challenging task for dermatologist and rheumatologists. Whether SLEP is a distinct entity or a coincidental overlapping disease between LEP and localized scleroderma remains to be determined. Our case confirm necessitates of close monitoring and extended follow-up monitoring for the progression of the disease spectrum along with their management strategies.

Keywords: Cutaneous lupus erythematosus, lupus profundus, lupus panniculitis, scleroderma-like lupus erythematosus panniculitis, localized scleroderma, morphea, overlap syndrome

BEYOND THE INTESTINAL GLUTEN- INTOLERANCE: A CLINICAL CASE OF DERMATITIS HERPETIFORMIS (MORBUS DUHRING) IN A YOUNG BOY

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Dermatitis herpetiformis, also known as Morbus Duhring, is an autoimmune skin dermatosis first described by the American dermatologist Luis Duhring. Van der Meer further contributed in portraying Morbus Duhring by identifying a key immunological feature: granular IgA deposits at the dermo-epidermal junction. The prevalence in Europe ranges from 11.2 to 75.3 per 100.000 people, with higher incidence in adult males. Dermatitis herpetiformis is rarely reported in pediatric patients, and when it does occur, it is often misdiagnosed as atopic dermatitis. We present a clinical case of a pediatric patient diagnosed with dermatitis herpetiformis at the University Clinic for Dermatology in Skopje. The patient was referred to a dermatologist due to a one-year-history of intense pruritus which later evolved into papular exanthemas and vesicular eruptions, primarily affecting the patient's elbows and knees. No medical history of coeliac disease (gluten-sensitive-enteropathy) was reported at the time of examination. Owing to the typical clinical presentation, dermatitis herpetiformis was our differential diagnosis. To confirm Morbus Duhring, a perilesional skin biopsy was performed, along with a potassium iodide (KI) path test. Additionally, a gluten-free diet was recommended. Histopathological results revealed a predominantly neutrophilic infiltrate at the dermal papillae, with granular IgA deposits along the dermal-epidermal junction. Given the consistent dermopathological findings, the patient was diagnosed with dermatitis herpetiformis. A month later, the patient returned for a follow-up, showing slight skin improvement as a result of the gluten-free diet. The intense itching was still present, yet no signs of vesicular lesions were noted. Further treatment was initiated, including Betamethasone dipropionate cream 0,5mg/1g for topical application at sites of itchiness once every other day, and Tacrolimus monohydrate cream 0,33% once daily.

Keywords: dermatitis herpetiformis, Morbus Duhring, pediatric patients

EFFICACY OF PULSE DYE LASER (PDL) IN THE TREATMENT OF RECALCITRANT PLANTAR HPV WARTS

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Introduction: Plantar warts are a common viral skin infection caused by Human Papillomavirus (HPV), primarily types 1 and 2. These lesions can become chronic and resistant to conventional treatments such as cryosurgery and topical therapies.

Methods: This study evaluates the efficacy and safety of Pulse Dye Laser (PDL) therapy in the treatment of recalcitrant plantar warts. A total of 50 patients with chronic plantar warts were treated with PDL in six sessions, spaced three weeks apart. The control group underwent cryosurgery. Outcome measures included lesion clearance rate, pain levels, and adverse effects.

Results: PDL therapy demonstrated significantly improved wart clearance rates, with 85% success compared to 60% with cryosurgery. Minimal side effects were reported, with no significant scarring or pigmentation changes.

Conclusion: PDL appears to be an effective and safe alternative for treating recalcitrant plantar HPV warts. Long-term results suggest that this method could replace traditional cryosurgery in selected cases.

Keywords: Plantar warts, Pulse Dye Laser, Cryosurgery, HPV, Laser therapy

TREATMENT OF AN INDIVIDUAL WITH DOWN SYNDROME IN A PALLIATIVE CARE CENTER

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Introduction: Down syndrome is the best known and most common syndrome among many malformation syndromes. More than 100 clinical symptoms and findings are noted in the disease. It is one of the most important causes of genetically based mental retardation.
The average life expectancy of patients receiving good care and proper medical treatment has increased highly, nowadays it has reached 50-60 years, so an increase in the frequency of such patients is observed in palliative care centers.
Palliative care is provided by healthcare professionals to support at many points in order to meet the end-of-life expectations of all individuals.
Here we will examine the treatment an individual with Down syndrome receives in a palliative care center.
Case: A 58-year-old male patient was transferred from the intensive care unit with trisomy 21 (down syndrome), epilepsy, and acute renal failure. Examination findings were in favor of aspiration pneumonia. Methicillin-resistant staphylococcus capitis grew in the blood culture taken. Meropenem, polymyxin B and vancomycin were given in combination for 9 days. Since the acute phase reactants did not regress, these treatments were stopped, and linezolid 2*600 mg treatment was started. On the 8th day of antibiotic therapy, acute phase reactants began to decrease. His treatment continues with the enteral nutrition.
Discussion and Conclusion: We see that patients with genetic mutations such as Trisomy 21 are now included in the scope of palliative care, as in the example. We believe that the scope of palliative care will expand in the future and that there will no longer be only dementia and cancer cases.
Keywords; Down Syndrome, Trisomy21, Pallative Center

SUBCUTANEOUS DIROFILARIASIS OF THE EYELID: A CASE REPORT

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Introduction: *Dirofilaria repens* is a nematode, a filarial worm, that primarily affects dogs and other carnivores, but can also occasionally infect humans through mosquito bites. In humans, it most often causes subcutaneous nodules that are mobile and painful. The presentation of this parasite in the ocular region is a rare manifestation.

Aim: To present a rare case of *Dirofilaria repens* infection of the eyelid in a young woman with a history of staying on a Mediterranean island, 8 months prior to the examination.

Case report: A 31-year-old woman presented for an ophthalmological examination due to a nodular, moderately mobile, subcutaneous lesion accompanied by swelling and pain in the left lower eyelid. From the anamnestic data: the patient had stayed on the Greek islands 8 months ago, owned a dog, and a few months prior to the appearance of the ophthalmological problem, had swelling, redness and itching of the forearm on the same side of the body. A blood count was performed, which showed a mild increase in eosinophils.

Based on the clinical examinations, the history and the laboratory findings, a working diagnosis of subcutaneous helminthiasis was made. Surgical removal of the parasite was performed under local anesthesia and the entire specimen was sent to the Institute of Microbiology and Parasitology for evaluation. The analysis confirmed the presence of *Dirofilaria repens*, a common cause of human dirofilariasis, especially in the Mediterranean region.

Conclusion: *Dirofilaria repens* should be considered as a possible cause in cases with migratory subcutaneous nodules, especially in endemic areas such as the Mediterranean region. Identification of the nematode is of great importance for: correct diagnosis, appropriate assessment for treatment and epidemiological tracking. Surgical removal is the treatment of choice because the parasite does not complete its life cycle in human tissues.

Keywords: *Dirofilaria repens*, subcutaneous dirofilariasis, eyelids, zoonotic infection

DELAYED DIAGNOSIS OF GRAVES OPHTHALMOPATHY

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Thyroid diseases are among the common endocrine diseases in our country and all over the world. Thyroid diseases are caused by either increased hormonal activity or decreased hormone production. Thyrotoxicosis, an increase in thyroid hormone in the blood due to various reasons; When the thyroid gland works harder than normal and produces excessive amounts of thyroid hormone, it is called hyperthyroidism or Graves' disease. The most common extrathyroidal involvement of Graves' disease is thyroid ophthalmopathy. Thyroid ophthalmopathy is an autoimmune disease that affects the orbital and extraocular muscles, the pathogenesis of which is not fully understood. Graves ophthalmopathy management should begin with the control of accompanying thyroid disease. The correct diagnosis of thyroid diseases is obtained through a careful history, physical examination and laboratory investigation. In our article, the approach to the problems of the patient with delayed diagnosis of thyroid ophthalmopathy who applied to primary health care services was discussed.

Keywords: Hyperthyroidism, Ophthalmopathy, TSH Receptor Antibodies (TRab)

A ROMANI CHILD ADOPTED BY A WHITE ENGLISH FAMILY: THE IMPACT OF EARLY ADOPTION, RELOCATION, AND CULTURAL DISPLACEMENT ON AGGRESSION AND EMOTIONAL DYSREGULATION

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Aims

To examine the interconnections of attachment, identity, and cultural factors in her emotional and behavioral difficulties.

Methods

History of the patient's development as well as the psychosocial background were studied with the help of qualitative data: parents interviews and therapy sessions. It was noted how often she changed her places of residence, what conflicts of identity she has in regard to her roots, and the emotional toll of adapting to differing cultural environments. Her attachment style was also assessed to understand the role of early relational patterns in her difficulties.

Results

The patient's behavioral profile characterized by verbal and physical aggression, self-harm, and even casual separation from reality seems to be a direct consequence of her unstable early attachment and acculturation. Seven relocations undermined her sense of stability and belonging, while her internal struggle with her Romani identity amplified feelings of rejection and alienation. Her defiant and oppositional behavior was interpreted as both a reaction to perceived instability and a means of expressing unresolved trauma and unmet emotional needs.

Conclusion

This case underscores the profound impact of cultural and relational dysfunction on emotional and behavioral health. The existence of disorganized attachment, reflecting the interplay of affection and fear in her early caregiver relationships, further amplify her vulnerability to emotional dysregulation and aggression. Treatment approaches should focus on promoting secure attachment, creating stability and resolving the patient's identity conflicts in a culturally sensitive manner.

INEFFECTIVENESS OF FAMILY AND SOCIAL SERVICES SUPPORT – PATH TO INDUCED HOSPITALISM IN A 17-YEAR-OLD ADOLESCENT

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Aim

This study focuses on a 17-year-old boy, who has undergone 16 hospitalizations in four years, primarily due to mental health crises, impulsivity and aggressive behavior. The aim is to show how a dysfunctional family setting, poor pharmacological compliance and inadequate social service intervention lead to repeated hospital admissions.

Methods

This qualitative case study analyzes clinical records, family interviews, and medical professional reports to explore the interplay between the patient's psychiatric symptoms, family dynamics and social services involvement.

Results

The patient's psychiatric issues started in early adolescence, with aggression, impulsivity, OC symptoms and social withdrawal. The frequent absences of his father worsened his condition, while his mother's untreated mental health condition persisted, leading to escalating conflicts with family and peers. Initial oral pharmacological treatment failed due to non-compliance, so shifting to antipsychotic injections led to alleviated hostility and impulsivity. Despite multiple alerts to social services about the dysfunctional family dynamics, no significant changes occurred in his care. Even minor behavioral changes often led to re-admission, indicating that insufficient support exacerbated his mental health issues.

Conclusion

This case shows the significant impact of family dynamics and social services on adolescent mental health and recovery. The patient's repeated hospitalizations, despite medication improvements, highlight the need for a stable family and active social service involvement. Hospitalism can result from inadequate long-term support systems, leading to a cycle of admissions and difficulties in re-integration.

Students Session

A REVIEW OF THREE CASES OF LAPAROSCOPIC SACROILIAC LIGAMENT DISSECTION IN THE TREATMENT OF CHRONIC PELVIC PAIN IN WOMEN.

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Chronic pelvic pain occurs in 10-15% of women, and is accompanied by pain that persists for more than a year. The occurrence of pelvic pain that lasts longer than 6 months, according to the American College of Obstetricians and Gynecologists (ACOG, 2004), is defined as chronic pelvic pain. It can lead to disability or the need for medical care, as well as lead to serious diseases, and is itself a disease and not a symptom. The most common gynecological causes of chronic pelvic pain are endometriosis and pelvic inflammatory disease, with treatment depending on the underlying cause, severity of symptoms, extent and location of the disease, desire for pregnancy, and the patient's age. Conservative medical treatments for chronic pelvic pain include nonsteroidal anti-inflammatory drugs and oral contraceptives. Surgical excision of endometrial implants and removal of associated adhesions may also be considered. Hysterectomy alone may be considered in patients with severe symptoms who do not respond to conservative treatment. Neuroablative procedures have also been investigated for the treatment of chronic pelvic pain. Neurolytic therapy may involve surgical transection or excision of nerves, injection of neurotoxic chemicals, or the use of energy sufficient to destroy neural tissue (heat, cold, laser). The most commonly used procedures are laparoscopic uterosacral nerve ablation (LUNA) and presacral neurectomy (PSN). Laparoscopic uterosacral nerve ablation involves the destruction of uterine nerve fibers that exit the uterus through the uterosacral ligament. Presacral neurectomy also refers to the interruption of sympathetic innervation of the uterus at the level of the superior hypogastric plexus. In addition, presacral neurectomy is technically more demanding than sacroiliac ligament dissection due to the presence of large blood vessels and ureters near the dissection field. Our paper presents three cases of sacroiliac ligament dissection in the treatment of patients with chronic pelvic pain. Preliminary results are encouraging and encourage further research.

Keywords: chronic pelvic pain, sacroiliac ligament dissection, neuroablation.

RECURRENCE OF HIGH-GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN III) WITH A RARE TYPE OF HUMAN PAPILLOMAVIRUS (HPV) TYPE 82

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According to numerous scientific studies, it has been demonstrated that infection with the HPV virus can lead to precancerous conditions of the cervix and cervical cancer. Aside from the well-established high-risk HPV types (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, and 59), type 82 is also regarded as a high-risk variant. At the age of 31-35 the prevalence is only 0.09%, and the overall prevalence is 0.86%.

A 31-year-old woman, nulliparous, presented for a routine gynecological examination in 2014, during which HPV type 16 was detected and high-grade cervical intraepithelial neoplasia (CIN III). Subsequently, she underwent a cold knife conization. Several years later, she was diagnosed with a recurrent HPV infection, this time with type 31, which was followed by a clearance of the virus in a period of 18 months. However, after ten years, in 2024, she experienced another recurrence, this time with HPV types 82 (high-risk) and 6 (low-risk). The biopsy showed CIN III so she was treated with loop electrosurgical excision procedure (LEEP). The definitive histopatological diagnosis was: High-grade squamous intraepithelial lesion. Although it is rare, this type is most prevalent in countries such as Sweden, Norway, Denmark, parts of Africa, Southeast Asia, and certain areas of Latin America.

Based on the presented case, it is evident that persistent and recurrent infections with high-risk HPV types can lead to high-risk cervical abnormalities. The recurrence of HPV infections, even after initial clearance, emphasize the importance of continuous monitoring and early intervention in patients with high-risk HPV types and the importance of postoperative vaccination. This case highlights the necessity of HPV screening for detecting even types that are rarely or almost never encountered in this region.

Keywords: HPV, CIN, cone biopsy

SEVERE POST-PROCEDURE HEMORRHAGE FOLLOWING CO2 LASER VAPORIZATION IN A PERSON WITH FACTOR XI DEFICIENCY

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Background: Factor XI deficiency is a rare inherited bleeding disorder that can lead to prolonged or excessive bleeding, particularly during surgical or invasive procedures.

Aim: Raise awareness among healthcare professionals about rare bleeding disorders. This case presents a 23-year-old woman who experienced severe hemorrhage after CO2 laser vaporization for Ectocervical Intraepithelial Neoplasia (CIN) 2.

Case Presentation: A 23-year-old female underwent CO2 laser vaporization for CIN 2. The patient had no significant bleeding during the biopsy procedure. However, 2–3 hours post-laser treatment, she developed significant hemorrhaging, leading to a drop in hemoglobin by 20g/L. Despite the absence of major vessel damage, bleeding occurred from multiple sites in the cervical tissue. Screening haemostasis was performed and activated thromboplastin time was prolonged. Test for correction with normal plasma was performed and the test showed correction. The following testing of factors of Intrinsic Pathway of coagulation cascade showed Mild Factor XI Deficiency (30%, normal values 50-150%).

Management: Initial tamponade was performed to control the bleeding. A revision procedure under speculum examination was conducted, revealing diffuse bleeding from several sites, with no damage to major blood vessels. The bleeding was managed with hemostatic measures and additional interventions to stabilize the patient. According to the recommendation from the Center for Haemophilia, bleeding was controlled with tranexamic acid, 15 mg/ kg/ BM, every eight hours, for a period of three days.

Conclusion: This case highlights the risk of significant post-procedural hemorrhage in patients with Factor XI deficiency, even without major vessel injury. Awareness of delayed bleeding in such patients is crucial during procedures like CO2 laser vaporization. Early recognition and intervention are key to preventing severe complications. A multidisciplinary approach is essential for managing rare bleeding disorders.

Keywords: peripartum cardiomyopathy, PPCM, term delivery

PREFERENCE OF DELIVERY TYPE OF PREGNANT WOMEN AND THE FACTORS EFFECTING THEM

BUSE ATACI
Ss.cyril and methodius university

Objective: Birth is a process that can expose women to many risks. One of the important issues to be decided is the type of delivery. Many factors influence women, but what is important is that they are adequately directed to the appropriate mode of delivery, and that labor results in a healthy mother and baby. To investigate the view of pregnant women delivery preference and to contribute to the development of new health strategies in order to prevent the increase of cesarean rates.
Methods: The pregnant between 6 and 40 weeks of gestation were included in the questionnaire. Pregnant women in labor were not included in the questionnaire. The answers were evaluated and the reasons underlying the attitudes of the pregnant women about the mode of birth were tried to be revealed.
Results: 71.6% of individuals over 30 years of age preferred cesarean delivery. No statistically significant relationship between gestational age and type of delivery. Postpartum complication subscale scores and total delivery information scores of the healthcare personnel were higher than the other occupational groups. 75.1% of vaginal births stating the reasons stated they preferred choice for mother-child health, first births of 37.8% of those preferring caesarean delivery stated that they preferred to cesarean section
Conclusions: Health personnel and family physicians play an important role in determining the mode of delivery for the best benefit of the mother and the baby, and reducing unnecessary cesarean procedures
Keywords: inflammatory, vaginal delivery, complication.

REDUCTION MAMMAPLASTY WITH THE INFERIOR PEDICLE TECHNIQUE FOR TREATMENT OF GIGANTOMASTIA

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Gigantomastia is a rare condition characterized by excessive breast growth, leading to both physical and psychological distress. While it is often associated with pregnancy or puberty, some cases remain idiopathic. Patients with this condition experience symptoms such as neck pain, back pain, mastalgia, and poor posture, in addition to psychological effects like depression and anxiety. Treatment options, such as breast reduction surgery, can alleviate these burdens. We present a case of gigantomastia not associated with pregnancy or puberty, successfully treated with reduction mammaplasty.

Case Report

A 38-year-old woman presented with progressive breast enlargement over several years. She had two children, with the first born in 2018 and the second in 2020. Her medical history included hypertension (HTA) and a status post appendectomy. Despite no significant changes during pregnancy, the patient experienced neck pain, paresthesias, chronic breast pain, and poor posture. After enduring these issues for years, the patient opted for surgery to improve her quality of life. Preoperatively, markings were made with the preservation of the areola, measuring 35 cm medial to the clavicle, and 24 cm at the lowest point. Two drains were placed and removed after 3 days.

The patient underwent breast reduction surgery using the inferior pedicle technique with an inverted T-pattern. The areolas were fixed using the purse-string technique. Under general anesthesia, the surgery was uneventful, with a reduction of 978 grams from the right breast and 990 grams from the left. Postoperatively, the patient experienced significant physical and emotional relief.

Conclusion

Reduction mammaplasty using the inferior pedicle technique effectively addressed the physical and psychological symptoms of gigantomastia in this patient. The patient reported significant satisfaction and relief during follow-up visits. This case highlights the importance of surgical intervention in improving the quality of life for patients with gigantomastia.

Keywords: breast reduction, mammaplasty, gigantomastia

FROZEN ELEPHANT TRUNK (FET) FOR STANFORD DISSECTION TYPE A, AFTER BENTALL PROCEDURE IN MARFAN SYNDROME

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Introduction: Marfan syndrome is the most common syndromic Hereditable Thoracic Aortic Disease condition with a prevalence of 1/5000–1/10 000, arising from pathogenic fibrillin-1 gene (FBN1) variants. Skeletal and ocular manifestations occur, but cardiovascular complications such as aortic aneurysm and dissection involving the aortic root are hallmarks of the disease. Common symptoms include: undue fatigue, chest pain, and shortness of breath.

Case report: A 26-year-old male with diagnosed Marfan syndrome, complains of chest pain, on a routine check-up. One year before current admission he was diagnosed with an aneurysm of the ascending aorta when the Bentall procedure was performed with graft replacement (Conduit graft, 27 mm) of the aortic valve, aortic root and the ascedending aorta with re-implantation of the coronary arteries into the graft. Mitral valve and tricuspid valve repair were also performed. The patient underwent transthoracic echocardiography (TTE), which revealed an intimal flap posteriorly to the subclavian artery, and an intimal flap on the descentant thoracic aorta. A suspicion of Stanford dissection type A was made which was confirmed with computer tomography (CT) angiography of the aorta. This time, the patient was a candidate for the frozen elephant trunk (FET) procedure, in two acts. During the first act, a left carotid-subclavian bypass was done. In the second act, after medial sternotomy and adhesiolysis, the graft of the aortic arch and the supra-aortic vessels was prepared, and a vessel loop by Blalock on the brachiocephalic trunk and the left common carotid artery was done. After suturing of the brachiocephalic trunk graft and cannulation, the bypass was started and cardioplegia was administrated. The affected part of the aorta was resected and the ostium of the brachiocephalic trunk and the left common carotid artery were resected for reimplantation. Trilateral antegrade cerebral perfusion was established via the common carotid artery. The stent graft prosthesis was placed, fixated, and anastomosed with the graft of the ascending aorta. The previously resected vessels were reimplanted to the graft. After finishing the procedure the patient was released from the cardiopulmonary bypass with minimal inotropic support and transferred to the ICU. Follow-up CT angiography shows the artificial valves and graft, without retention of fluid, and a normal finding of the supra-aortic vessels. The patient subjectively feels better.

Conclusion: Cardiovascular complications in Marfan syndrome often require multiple interventions. Even though stent grafts are not recommended in patients with connective tissue disorder, the FET procedure gives a stable proximal landing zone which facilitates later distal reinterventions if required.

Keywords: FET, Marfan syndrome, Bentall procedure, Aortic dissection, Aortic aneurysm

DELLON DECOMPRESSION FOR DIABETIC NEUROPATHY – A CASE REPORT

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Introduction - Diabetic neuropathy frequently leads to chronic, non-healing foot ulcers due to impaired sensory function and reduced perfusion.

Case report - We present a case where Dellon decompression of the four medial ankle tunnels was performed to enhance blood flow and promote ulcer healing in a patient with diabetic neuropathy.

A 65-year-old male with longstanding diabetic neuropathy and a chronic plantar foot ulcer (duration: 18 months, size: 10.5 cm^2) presented with severe sensory deficits, a positive Tinel sign at the tarsal tunnel, and reduced posterior tibial artery blood flow (1.74 cm^3/sec on Doppler ultrasonography). The patient had well-controlled diabetes and no significant vascular occlusive disease.

Preoperative and postoperative assessments included a presence of positive Tinel sign, Michigan Neuropathy Screening Instrument (MNSI) score, a two-point discrimination test, Doppler ultrasonograph for evaluation of posterior tibial artery blood flow and DMIST scale for ulcer characterization.

Dellon decompression of the four medial ankle tunnels was performed to relieve tibial nerve compression. At the 9-month follow-up, the patient demonstrated significant improvements in sensory function (MNSI: 12 → 5), a marked reduction in Tinel sign intensity (VAS: 7 → 2), and enhanced posterior tibial artery blood flow (1.74 → 2.52 cm^3/sec; $p<0.0001$). By this time, the ulcer had completely healed, with no new ulcerations or infections.

Conclusion - This case highlights the potential benefits of Dellon decompression in improving blood flow, restoring plantar sensibility, and promoting ulcer healing in diabetic neuropathy. The results suggest that chronic nerve compression contributes to microvascular insufficiency and delayed healing in diabetic foot ulcers. Given the positive outcomes observed, Dellon decompression may be an effective adjunct for managing diabetic foot ulcers that are resistant to conventional treatments and may offer a promising treatment for patients with similar conditions.

Keywords: Diabetic neuropathy, Dellon decompression, Tarsal tunnel, Blood flow improvement, Ulcer healing, Sensory function

SEVERE OBESITY IN A YOUNG PATIENT: COMPLEXITIES IN DIAGNOSIS AND MANAGEMENT

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Case Presentation: Extreme obesity is a significant medical condition associated with increased morbidity and mortality, presenting numerous diagnostic and therapeutic challenges. This case report highlights the complexities in managing a patient with severe obesity and discusses modern treatment approaches.

A 28-year-old male, 174 cm in height and approximately 290 kg in weight, presented with severe mobility limitations, chronic lower abdominal pain, recurrent headaches, and generalized weakness. He denied any history of endocrine or metabolic disorders. Clinical examination revealed pronounced central and peripheral obesity, multiple skin folds, a large scrotal hernia, and significantly restricted mobility, requiring assistance for daily activities. Hypertension and tachycardia were noted during the assessment.

Diagnostic challenges included difficulty obtaining accurate blood pressure measurements due to inadequate cuff sizes and limitations in standard hospital equipment, such as diagnostic beds and imaging tools. Transportation difficulties further complicated his care.

A multidisciplinary approach was implemented, involving endocrinologists, nutritionists, surgeons, anesthesiologists, physiatrists, and psychologists. The treatment plan included:

- Pharmacological therapy with GLP-1 receptor agonists combined with a structured dietary regimen.
- A medically supervised weight reduction program integrating physical activity tailored to the patient's capabilities.
- Endoscopic interventions, such as intragastric balloon placement, as a bridge to definitive surgical treatment.
- Preoperative preparation for bariatric surgery, considered a long-term therapeutic option.

Conclusion: This case underscores the urgent need for specialized medical and logistical strategies in managing extreme obesity. Early intervention with a multidisciplinary team and the integration of novel pharmacological and minimally invasive treatments can significantly improve patient outcomes and quality of life. The adaptation of healthcare infrastructure and personalized therapeutic approaches is essential for optimizing care in this patient population.

Keywords: obesity, diagnostic challenges, bariatric surgery, multidisciplinary approach, pharmacological therapy

THE IMPACT OF CHRONIC ILLNES ON MENTAL HEALTH

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"spec ambulanta za psihijatrija Medika Pro Mente Ohrid "

Hepatits is a chronic condition that significanty affects both physical and mental health .People living with hepatitis , face an increased risk of developing mental health disorders such as depression and anxiety . This case report describes a 22 year old man diagnosed with hepatitis who experienced severe mental heath challenges following his diagnosis .Since his diagnoses , he reported persistent feelings of sadness , social withdrawal and anxiety about his future , despite ART therapy, his mental health deteriorated .The patient also reported difficulty maintaining social relationship due to stigma and fear, on assessment he was diagnosed with specific personality disorder and severe depression and anxiety ,he was also hurting him self with knife and had a few suicidal attempts ,the patient was started on antidepressant fluoxetine 20 mg and anti psychotic olanzepin 5 mg along with cognitive behavioral therapy , over the following 2 months his depression and anxiety symptoms improved and he reported better , factors such as stigma , social isolation and fear of disease progression can exacerbate mental health issues , combination of medications with social support and psychotherapy improved both his mental well being adherence to treatment .

Key words: hepatitis, depression, anxiety

WHEN AIR ESCAPES: A HOLISTIC APPROACH TO SEVERE TRACHEAL RUPTURE MANAGEMENT

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A female patient who had previously undergone a laparoscopic cholecystectomy exhibited significant postoperative sequelae, including pneumomediastinum and subcutaneous emphysema, prompting us to suspect a tracheal rupture. This was verified by CT imaging. Although there was noticeable emphysema in the cervical and facial areas, the patient had stable hemodynamics (BP 120/80 mmHg, HR 123 bpm, SpO_2 99%) at arrival. An immediate diagnostic work-up, including bronchoscopy and flexible tracheoscopy, revealed tracheal damage necessitating immediate treatment.

The severity of the case necessitated intensive care, including endotracheal intubation, mechanical ventilation, and broad-spectrum antibiotics. Despite initial stabilization, the patient experienced recurrent respiratory decompensation, requiring re-intubation and escalated support.

Several unsuccessful attempts at estuation led to the performance of a tracheotomy which secured the airway and enabled a cautious weaning attempt, under the guidance of optimized sedation protocols.

We addressed pleural effusion through ultrasound-guided drainage in addition to airway management. The patient developed acute respiratory distress syndrome (ARDS) as a consequence of the tracheal rupture and associated complications, necessitating meticulous ventilatory support and frequent adjustments to minimize further lung injury. We monitored the infectious complications through serial laboratory tests. This complex case required a highly coordinated multidisciplinary approach, with consultation from thoracic surgeons, pulmonologists, and otorhinolaryngologists. We also incorporated physical therapy and nutritional support to support recovery.

After achieving stable respiratory function, the patient was decannulated. Follow-up imaging confirmed significant improvement, and the patient was transferred to the Thoracic Surgery Department for ongoing care.

The importance of a multidisciplinary approach in treating serious postoperative complications is highlighted by this example. A successful outcome in this complicated, life-threatening illness required a combination of early intervention, ongoing monitoring, and interdisciplinary teamwork.

Keywords: Tracheal rupture, pneumomediastinum, multidisciplinary management.

RECURRENT EMPYEMA IN A PATIENT WITH PULMONARY TUBERCULOSIS: A DISEASE OF THE PAST CENTURY

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Pulmonary tuberculosis, caused by Mycobacterium tuberculosis, is a life-threatening disease. It presents with nonspecific sympthoms like coughing, fever and unexplained weight loss. Complications can include hemoptysis, pneumothorax, empyema, broncholithiasis, and atelectasis. Due to its low incidence in many countries, diagnosing tuberculosis remains challenging and requires multiple diagnostic investigations.

We present a case of a female patient who has been battling with pulmonary tuberculosis complications for several months. She was admitted with a six-month history of persistent cough and difficulty breathing. Initially treated by an internal medicine specialist, after which she was referred to an infectious disease specialist, followed by a thoracic surgeon for a CT scan and further evaluation.

Hospitalized in thoracic surgery, the patient underwent laboratory tests, contrast-enhanced CT, and bronchoscopy. Due to pleural complications, specifically hydropneumothorax, VATS (Video-Assisted Thoracoscopic Surgery) exploration was indicated. Uniportal VATS revealed pleural empyema with an apical air collection. Persistent empyema, prolonged air leakage and a suspected bronchopleural fistula led to a VATS revision.

Recurrent empyemas in the post-op period and a persistent bronchopleural fistula necessitated thoracotomy with thoracomyoplasty, resection of two ribs, and plication of fistulas using m. Latissimus dorsi and m. Serratus anterior. After a challenging post-op period with recurrent infections, an open thoracic window was left for daily lavage.

Three months post-bronchoscopy, Pseudomonas aeruginosa, Acinetobacter baumannii, and Mycobacterium tuberculosis were isolated, leading to antitubercular therapy. The patient was discharged in better condition but with a chronic pleural infection requiring long-term conservative treatment. She awaits another VATS patch procedure due to a persistent chronic parenchymal bronchopleural fistula.

Keywords: VATS, thoracomyoplasty, pulmonary tuberculosis

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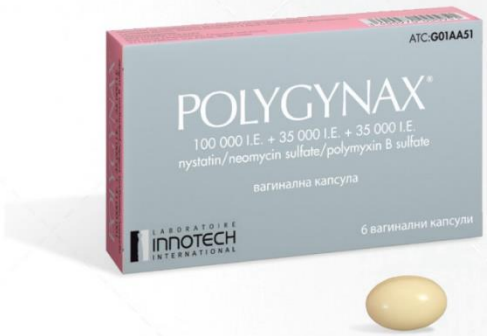

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Closing Note

As we conclude this abstract book for the **3rd International Case Report Congress**, we extend our deepest gratitude to all the authors who shared their valuable work and to the reviewers who provided insightful feedback. This year's congress was further enriched by the **Macedonian-Turkish Medical Symposium** and the **Symposium on Medical Education and Health Systems in Balkan Countries**, fostering meaningful discussions and international collaboration.

The case reports, research, and discussions presented here highlight the **complexity and diversity of clinical practice**, reinforcing the crucial role of careful observation, thorough documentation, and critical analysis. They also showcase the power of **cross-border collaboration**, uniting healthcare professionals in a shared commitment to advancing medical knowledge and improving patient care.

We hope this collection of abstracts serves as a source of inspiration, encouraging further **research, discussion, and innovation** in the medical community. May the knowledge and experiences shared here contribute to **better healthcare outcomes and stronger professional networks across the region and beyond**.

Once again, we sincerely thank all contributors for their dedication, and we look forward to the continued growth of this congress in the years to come.

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