

Objective: The aim of this study was to assess possible differences in knowledge of residents from countries with different mortality and morbidity rates of cervical cancer. Furthermore, we aimed to find out if there was any association between the level of awareness and preventive behavior.

Material and Methods: It was a cross-sectional study conducted by means of a questionnaire. The study group consisted of academic students aged 20-25 years old, both men and women. The survey included 4 parts with questions about demographic information, a short test of knowledge about human papillomavirus (HPV) and cervical cancer, questions about applied preventive methods and possible exposure to risk factors among respondents. The survey was conducted among students from 10 countries with a different incidence of cervical cancer. Answers from 5632 students were compared in accordance to the incidence of cervical cancer in these countries presented by World Health Organization - International Agency for Research on Cancer.

Results: Students from countries with age-world-standardized incidence rate lower than 10 had better knowledge concerning risk factors such as high number of sexual partners ($p < 0.001$), smoking ($p < 0.001$) or HPV infection ($p < 0.001$). Use of preventive methods was more frequent in countries with lower cervical cancer incidence: Pap smears [$p < 0.001$, RR=1.67 (1.53-1.82)], HPV tests [$p < 0.001$, RR=3.77 (3.03-4.60)] and HPV vaccines [$p < 0.001$, RR=2.43 (2.14-2.75)].

Conclusions: It seems that the best method for decreasing cervical cancer incidence in countries with high morbidity could be an improvement of knowledge levels concerning the disease, followed by facilitated access to preventive services.

PS-03-03

Extraovarian pelvic seromucinous tumour: a case report

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Objective: In 2002, Shappell et al. recommended the term "seromucinous" for ovarian tumours composed of a mixture of endocervical-type mucinous, serous, endometrioid, squamous and undifferentiated cells. The revised World Health Organization Classification of Tumours of the Female Reproductive Organs established that seromucinous neoplasms are a new category of ovarian epithelial tumours. Borderline seromucinous variants are considered rare but are generally well described, while seromucinous carcinomas could be finger enumerated. Pathogenetically, these tumours are supposed to be associated with endometriosis, usually express ER and PR, but are WT-1 negative.

Material and Methods: We were challenged to diagnose a pelvic seromucinous tumour in a 60-year-old female. Previous medical history was notable for adnexectomy and hysterectomy for ovarian cancer, at that time reported as serous carcinoma, grade non-identified. 20 years later, the patient was referred to our hospital and underwent surgery for pelvic tumor exceeding 150 mm, with a heterogenous structure on CT.

Results: On gross examination, tumour's cut surface demonstrated variegated appearance with cystic spaces containing gelatinous material. Routine H&E slides reviewed a peculiar combination of low-grade serous papillary structures and admixed mucinous and endometrioid glands within the fibrotic stroma.

Conclusions: Borderline seromucinous extraovarian neoplasm was diagnosed, supported by immunohistochemistry. Review of available literature will be provided.

PS-03-04

Fibroadenoma of the vulva: a case report

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Objective: Herein a rare case of fibroadenoma of the vulva is presented. It is biphasic fibroepithelial neoplasm composed of an epithelial glandular and a stromal component, arising in the anogenital mammary-like glands (AGMLG).

Material and Methods: Light microscopic and immunohistochemical study.

Results: The patient was a 30-year-old female with the painless mass in the vulva. A history of hormonal therapy was not recorded. Removed tumor was 1.0 cm in size, with smooth margins, elastic and homogeneous. Microscopically, it was sharply demarcated neoplasm with pericanalicular and intracanalicular growth patterns, and with focal dilatation of duct lumens. The stroma was homogeneous with rare mitotic figures. Decapitation apocrine secretion was noted in some ducts. There was no pleomorphism either in the epithelial or stromal component. The glandular component reacted positively for cytokeratins (CK7, cytokeratin AE1-AE3), ER and PR. The stromal cells were positive for CD34 and negative for ER and PR. There was not any c-erbB-2 or p53 expression. Patient has not had a recurrence of disease for 7 years.

Conclusions: In conclusion, fibroadenoma arising in AGMLG is the same as its mammary counterpart. It may represent potential diagnostic pitfall due to an extraordinary location.

PS-03-05

Liquid-based cytology versus conventional cytology in women with squamous intraepithelial lesions of the uterine cervix

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Objective: The aim of the study was to compare the results of two cervical cytology techniques, liquid-based and conventional, using the cervical biopsy as the gold standard for diagnosis of squamous intraepithelial lesion (SIL) of the uterine cervix.

Material and Methods: This comparative prospective study was conducted in a series of 200 sexually active patients, aged from 19 to 49, who came to their annual gynecological exam at University Clinic of Gynecology and Obstetrics in Skopje between January and October 2015. In all patients, simultaneously, conventional Papanicolaou smear and Thin Prep liquid-based samples were taken. The performance of both techniques was compared with the gold standard of the biopsy results in a series of 118 patients with squamous cell abnormalities of the uterine cervix. In all these patients a colposcopically directed biopsy with endocervical curettage was taken.

Results: When comparing the cytological diagnoses the agreement between two cytology methods for all 200 cases was 76%. The diagnostic efficiency between the two methods was further evaluated by comparing the cytological diagnosis of each method with the histopathological diagnosis in the series of 118 patients. Histology confirmed a presence of a low-grade squamous intraepithelial lesion in 54 and a high-grade squamous intraepithelial lesion in 6 cases, while

the remaining 58 cases had negative diagnostic interpretation. The liquid-based cytology was in agreement with histology in 81% of the biopsies in comparison to the conventional cytology which was in agreement with histology in 61% of the biopsies.

Conclusions: In conclusion, the results of our study suggest that the liquid-based cytology is a more sensitive (80%) and specific (83%) technique than the conventional cytology (sensitivity=57%, specificity=65%) in comparison to histology as a gold standard.

PS-03-06

Correlation between cytopathology and histopathology in women with squamous cell abnormalities of the uterine cervix

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Objective: The objective of our study was to investigate the correlation between cytology and cervical biopsy findings in women with squamous cell abnormalities on cervical cytology.

Material and Methods: A comparative retrospective study was conducted in the period from September 2015 to March 2016 in a series of 184 sexually active women, aged from 20 to 60 years, with squamous cell abnormalities in the liquid-based cytology test. In all women, cervical biopsy with endocervical curettage was performed colposcopically for histopathological analysis.

Results: Cytologically, there were 118 (64.13%) atypical squamous cells of undetermined significance (ASC-US), 22 (11.96%) low-grade squamous intraepithelial lesions (LSIL), 38 (20.65%) high-grade squamous intraepithelial lesions (HSIL) and 6 (3.26%) invasive squamous cell carcinoma cases. According to the histopathological findings in the cervical biopsy and/or endocervical curettage material in 108 (58.70%) women only nonneoplastic lesions were diagnosed. Twenty-four (13.04%) women had histologically confirmed LSIL, 42 (22.83%) had HSIL and in 10 (5.43%) cases invasive SCC was confirmed. For all squamous cell abnormalities, the sensitivity of the liquid-based cytology test in LSIL and higher grade lesions was 58.70% (108/184) and false positivity was 41.30% (76/184). Excluding ASC-US lesions, the sensitivity of the liquid-based cytology test was 78.80% (52/66) and the false positivity was 21.21% (14/66). The positive predictive value was 100% (6/6) for invasive SCC, 68.42% (26/38) for HSIL and 31.82% (7/22) for LSIL.

Conclusions: The high sensitivity of the liquid-based cytology test for HSILs shows that it is an effective screening test for cervical cancer and its precursor lesions.

PS-03-07

Strumal carcinoid of the ovary - a case report

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Objective: Primary ovarian carcinoids comprise 0.1% of all ovarian malignancies and approximately 0.5-1.7% of all carcinoid tumors. Strumal carcinoid (SC) is a type of germ cell tumor characterised by

an intimate mixture of thyroid tissue and carcinoid with other teratomatous elements.

Material and Methods: A 47-years-old woman was referred to gynecology department with complex bilateral adnexal masses for surgery. On gross examination, the right ovary was 11x10x7 cm, yellowish brown in color, with a polynodular surface, and the left ovary was 8x7.5x7 cm with a smooth surface. Cut sections revealed predominantly cystic multilocular masses, partially filled with greasy content with hair and smooth solid areas.

Results: On histopathologic examination the cystic spaces of the right ovary were lined by squamous epithelium with underlying adnexal structures, glandular epithelium and thyroid follicles containing colloid. All tissue components were mature. Among the thyroid follicles there was a population of monomorphic cells with moderate amount of eosinophilic cytoplasm, arranged in solid, trabecular and rosetoid patterns suggestive of a carcinoid. The suspicion has been confirmed by the immunoprofile of the tumor cells, which were diffusely immunopositive for CKAE1/AE3, synaptophysin, chromogranin, NSE and CD57, and the thyroid follicles including the central colloid were immunopositive for thyroglobulin, TTF-1 and thyroid peroxidase (TPO). The left ovarian cyst was a dermoid cyst.

Conclusions: The differential diagnosis of SC includes other entities, such as granulosa-cell tumor and Sertoli-Leydig-cell tumor. However, characteristic histological pattern, immunoprofile, and in some cases the clinical manifestations due to the neuroendocrine activity of the tumor, are usually conclusive for the diagnosis.

PS-03-08

Ovarian Leydig cell tumor (hilus cell tumor): a case report

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Objective: Leydig cell tumor is a rare ovarian tumor that belongs to the group of sex-cord stromal tumors. They produce testosterone leading to hyperandrogenism. As a subtype of steroid cell tumors of the ovary characterized by the presence of Reinke crystals, it comprises 19% and affects mainly young women.

Material and Methods: A 24-year old nulliparous patient clinically presented with hirsutism, oligomenorrhea, and infertility. Ultrasonography showed a left ovarian tumor mass with the greatest diameter of 4.3cm. The patient underwent a laparoscopic tumorectomy followed by gradual withdrawal of the symptoms at the first check-up after 6 months follow-up.

Results: The laparoscopically obtained material consisted of 15 yellow to orange-tanned, soft and solid fragments with a diameter ranging from 0.5 to 5.5cm. Microscopically, the tumor was solid, relatively well circumscribed, and composed of cellular areas with clustering of nuclei separated by eosinophilic anuclear zones. Some of the tumor cells had scant and others abundant eosinophilic or clear cytoplasm with lipid-rich, oil Red O-positive vacuoles and oval, hyperchromatic or bizarre nuclei. Mitotic figures were scarce, while Reinke crystals were found after a prolonged search. Immunohistochemically, tumor cells showed diffuse positivity for vimentin, focal for cytokeratin AE1/AE3, alpha-smooth muscle actin, S100, CD99, calretinin, inhibin-alpha, melan A, CD56 and were steroid hormone receptor negative.