

Endocrine Abstracts

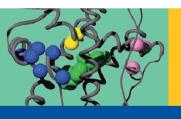
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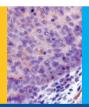


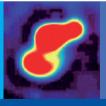
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Endocrine Abstracts

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in childhood, the management is multidisciplinary and includes several aspects. We report a case of Mc Cune Albright syndrome and the various difficulties encountered in its management.

Case report

A, H 22 years old, at the age of 6 months presented skin macules. At the age of 3 years he developed gait disorders, a taller stature compared withother children of the same age and gender, then signs of precocious puberty with secondary sexual characteristics at the age of 7 years. In 2015 the diagnosis of Mccune Albright syndrome was retained.

Discussion

Mc Cune Albright syndrome is initially defined by a clinical triad: precocious puberty, polyostotic fibrous dysplasia, skin hyperpigmentation. Currently this definition has been extended to include other endocrinopathies and hepatobiliary disorders. In addition to the classic triad, our patient presented a somatotropic adenoma complicated with a thyrotropic deficit, in association witha left testicular tumor with Leydig cells. The management is multidisciplinary with no approved treatment. The fibrous dysplasia could be managed medically sometimes surgically, but no current treatment stops lesional progression. The surgical management of polyostotic craniofacial fibrous dysplasia is often disappointing with high risk of postoperative regrowth. The thickening of skull induced by fibrous dysplasia and high hemorrhage risk makes the surgical treatment of acromegaly difficult, the reason justifying the choice of medical treatment for our patient.

Conclusion

McCune Albright syndrome is a rare pathology, the diagnosis is sometimes made early in childhood but the treatment is still limited an challenging. Furtherre search is needed to improve its management.

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EP933

Role of altered estrogen signalling in the pathogenesis of Recurrent Pregnancy Loss (RPL): A cohort based pilot study from Assam, India Natasha Kashyap¹, Chandana Ray Das², Ratul Dutta³, Anjuma Begum⁴, Sujoy Bose⁴ & Purabi Deka Bose¹ Cotton University, Molecular Biology and Biotechnology, Guwahati,

¹Cotton University, Molecular Biology and Biotechnology, Guwahati, India; ²Gauhati Medical College and Hospital, Guwahati, India; ³Down Town Hospitals, Guwahati, India; ⁴Gauhati University, Biotechnology, Guwahati, India

Context

Recurrent Pregnancy Loss (RPL), defined as two or more consecutive pregnancy losses, is a serious reproductive problem, affecting 1–5 per cent of reproductive-age women. Although a high percentage (7.46%) of RPL cases are reported from India, scanty reports are available on the molecular mechanisms associated with RPL susceptibility in the population of the north-eastern state of Assam. Hormonal imbalances are a major cause of recurrent pregnancy loss. Recent studies indicate that estrogen plays a crucial role throughout pregnancy in fetal development, utero-placental blood flow, and implantation. Objective

This work proposes to elucidate the role of alterations in the estrogen signalling pathway in the pathogenesis of RPL in the population of Assam. It would have therapeutic significance in atleast a sub-population of idiopathic RPL patients. Methods

RPL patients who had undergone three or more spontaneous miscarriages (n=21) and medically terminated pregnancies (MTP) cases (n=35) were enrolled for this study. Biochemical level of estrogen in RPL patients and MTP cases was studied by ELISA. This was followed by transcript level study of differential expression of its receptors, ER α and ER β by real time PCR method, and further validation at the protein level using immunofluorescence.

Results

The ELISA results indicated a higher level of estrogen in the RPL cases (5.03 \pm 1.52 pg/ml) when compared with the MTP cases (3.6 \pm 2.2 pg/ml) (P<0.020). The mRNA expression of the ER isoforms, ERa (0.08 \pm 0.11 fold change) and ERβ (0.07 \pm 0.09 fold change) was found to be downregulated in the RPL cohort compared to MTP. ERa, being the more functionally important receptor for estrogen-mediated signal transduction, its protein expression was also validated through immunofluorescence (IF). The IF results showed sporadic expression of

ER α protein in both the MTP as well as RPL cases, with a sharp downregulation or even no expression of the receptors in the RPL product of conception (POC) tissues. However, correlation analysis did not show any significant correlation between these factors (P > 0.05).

Conclusion

The results indicate the possible role of estrogen receptor expression that may be involved with RPL pathogenesis in the study population. However, the findings of this pilot study require validation in a larger sample size for therapeutic implementation.

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EP934

The evolution and therapeutic aspects of hirsutism: about 100 cases Bel Hadj Sliman Chayma, Nadia Khessairi, Anis Grassa, Fatma Chaker & Melika Chihaoui

Rabta Hospital, Endocrinology, Tunis, Tunisia

Introduction

Hirsutism is defined as excessive hair growth in androgen-dependent areas in women, related to an increased exposure androgen action in pilosebaceous follicles. It may be isolated, or associated to cutaneous manifestations from acne to signs of virilism. The aim of our study was to describe the therapeutic and evolutionary aspects of hirsutism.

Methods

It was a retrospective study at the endocrinology department of Rabta Hospital in Tunis including 100 women who presented hirsutism with over a period of 10 years from January 2009 to December 2020. Clinical and paraclinical data were collected from medical records.

Results

The average age of our patients was 29.5 ± 10 years old. The mean age at puberty was 12.1 ± 1.2 years old. The onset of hirsutism was acute in 5% of cases. It was associated with spaniomenorhoea, secondary amenorhoea and infertility in 46%, 4% and 10% of cases respectively. Biological hyperandrogenism was present in 59% of cases with a mean testosterone level of 0.9 ± 0.7 ng/ml. Biological and radiological investigations led to the diagnosis of ovarian tumour in 3 patients, adrenal tumour in 5 patients, late-onset congenital adrenal hyperplasia in 7 women, Cushing's disease in 3 patients and polycystic ovary syndrome in 51 patients. Hirsutism was idiopathic in 32% of cases. Concerning treatment, all patients were recommended to follow hygienic and dietary rules and metformin was associated in eleven cases. Eighteen patients received etiological treatment, i.e. adrenalectomy, oophorectomy, hydrocortisone replacement therapy in 5%, 3% and 7% respectively. While Thirty-four percent were put under estrogen and progestin combination therapy, only 29% were treated with an antiandrogen. An additional treatment by laser hair removal was further done by 11 patients. Evolution was marked by clinical improvement in 46%.

Conclusion

Not only is hirsutism a source of anxiety and social embarrassment for women, but in some cases it can hide a serious illness requiring urgent treatment. That's why a rigorous etiological investigation is required before the treatment.

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EP935

Hormonal changes in women with abnormal endometrial bleeding in peri and postmenopause

Ana Kocevska, Bashkim Ismaili, Kristina Skeparovska, Dimitar Georgiev, Ana Marija Spisic & Pranvera Izairi

Skopje, Special Hospital for Gynecology and Obstetrics 'Mother Theresa' Skopje, Skopje, North Macedonia

Objective

To determine the histopathological changes of the endometrium that occur during the period of perimenopause and postmenopause and to determine their association with the presence of obesity, diabetes, thyroid disorders and the levels of FSH, LH, estradiol, insulin and parathormone.

Material and methods

This study involved 120 patients with fractionated explorative curettage due to abnormal uterine bleeding. The control group consisted of 40 healthy women without fractionated explorative curettage. Anamnestic data were taken from from all respondents. Body height and weight were measured. This laboratory

analyses were performed: Glycemia, HbA1c, Hormonal Status (FSH, LH, Estradiol, Insulin, TSH, Thyroxine and Parathormone). Results

The most common pathological change of the endometrium was an endometrial polyp. Patients with explorative curettage were older than healthy women and had significantly higher Body Mass Index, higher levels of serum glycemia, triglycerides, serum insulin, FSH, LH, PTH and lower estradiol levels. Patients in the experimental and control group did not differ significantly in TSH and thyroxine levels.

Conclusions

In the period of perimenopause and postmenopause, there are changes in the genital organs, but also there are endocrine disorders. According to our study, some of them are related to the occurrence of changes in the endometrium and the need for fractional explorative curettage as a diagnostic procedure.

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EP936

Vaginoplasty in the treatment of androgen resistance syndrome: about

Amal Elkhomri¹, Nassim Essabah Haraj¹, Siham El aziz¹, Moataz Amine², Aboutaeib Rachid² & Asma CHADLl¹

¹CHU Ibn Rochd, Endocrinology-Diabetology and Metabolic Diseases Department, Casablanca, Morocco; ²CHU Ibn Rochd, Urology and Andrology, Casablanca, Morocco

Introduction

Androgen insensitivities are rare genetic diseases, characterized by a more or less complete defect of tissue sensitivity to testosterone. It ranges from a more or less complete lack of masculinization to isolated infertility in a 46, XY individual. Many surgical methods of vaginoplasty have been opted with the aim of reconstructing the anatomy to allow future sexual activity as well as an improvement in the quality of life. We report the case of two patients with complete androgen resistance syndrome discovered during the exploration of primary amenorrhea

Observation 1

33-year-old patient, operated in 2016 for bilateral intra-abdominal gonadectomy, with an anatomopathological examination of an ectopic testicle on the right without signs of malignancy, and an embryonic carcinoma on the left, the patient underwent chemotherapy sessions, she presents a harmonious and feminine Morphological development, with absence of vaginal orifice, a carotype was done in favor of a 46 XY, pelvic MRI with absence of internal genitalia, and genitography with absence of vaginal orifice, the patient was put on estrogen and progestin, with good clinical evolution

Observation 2

20-year-old patient, who underwent bilateral gonadectomy in 2017 with pathological examination of hypoplastic testicular pulp with hamartomatous nodules and hypoplastic foci of Leydig cells compatible with androgen insensitivity syndrome without malignancy, with a gynecological examination presence of labia majora and labia minora not well formed with an incipient vagina. a carotype was done in favor of a 46 XY, pelvic MRI with absence of internal genitalia, and genitography with absence of vaginal orifice, the patient was put on estrogen and progestin, with good clinical evolution The first patient underwent a rectosigmodian vaginoplasty and the second a vaginal enlargement surgery. The result was excellent with the obtaining of a 6 cm deep neovagina. After six months of follow-up, the two patients keep neovaginal cavities with regular digital dilation

Conclusion

The choice of the most appropriate surgical technique is conditioned by the results of the clinical examination, ultrasound, genitography and endoscopic exploration.

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EP937

Melatonin ameliorates glucocorticoid-induced invasiveness and circadian rhythm disruption in human endometrial adenocarcinoma cells
Angeliki Karapanagioti^{1,2}, Narjes Nasiri-Ansari², Ioannis Kyrou^{3,4,5,6,7},
Despoina Mavrogianni³, Peter Drakakis⁸, gregory kaltsas¹, Athanasios
G. Papavassiliou², Harpal Randeva^{4, 7} & Eva Kassi^{1,2}

¹National and Kapodistrian University of Athens, Medical School, 1st

Department of Propaedeutic Internal Medicine, Laiko General Hospital,

Athens, Greece; ²National and Kapodistrian University of Athens, Medical School, Department of Biological Chemistry, Athens, Greece; ³Aston University, Aston Medical Research Institute, Aston Medical School, College of Health and Life Sciences, Birmingham, United Kingdom; ⁴Coventry and Warwickshire Partnership NHS Trust, Warwickshire Institute for the Study of Diabetes, Endocrinology and Metabolism (WISDEM), Coventry, United Kingdom; ⁵Agricultural University of Athens, Department of Food Science and Human Nutrition, Athens, Greece; ⁶Coventry University, Centre for Sport, Exercise and Life Sciences, Research Institute for Health & Wellbeing, Coventry, United Kingdom; ⁷University of Warwick, Warwick Medical School, Coventry, United Kingdom; ⁸National and Kapodistrian University of Athens, Medical School, 1st Department of Obstetrics and Gynecology, Division of Human Reproduction, IVF Unit, Alexandra Hospital, Athens, Greece

Introduction

The biological rhythm pattern is synchronized through circadian oscillation of cortisol and melatonin release. Increased cortisol levels and circadian rhythm disruption act as an oncogenic factor in endometrial cancer through among othersdysregulation of cell proliferation/apoptosis and invasion. Aim

To investigate, whether there is an oscillatory expression of the clock genes, MT1 and GR expression in human endometrial carcinoma cells. To explore whether glucocorticoids and melatonin can affect the expression of these genes and further to evaluate whether dexamethasone and melatonin affect the viability and invasiveness of Ishikawa cells

Material and methods

Ishikawa cells were cultured and serum starved for 16h. Following starvation, cells were serum shocked and maintained in DCC-supplemented medium in the presence of dexamethasone (10⁻⁷M), melatonin (10⁻⁷M,10⁻⁸M) and GR antagonist RU486(10⁻⁵M), alone or co-incubated with dexamethasone and melatonin for 54h. Cell viability and cell invasion were evaluated by MTS and scratch assay, respectively. The mRNA levels of circadian clock genes: CLOCK, BMAL1, CRY-1, PER-2, ROR-α, REV-ERBb, glucocorticoid receptor-alpha and melatonin receptor were measured by qPCR. Results

Dexamethasone induced cell invasiveness of Ishikawa cells was inversed by 10% in the presence of melatonin at 10⁻⁸M for 54h. Co-incubation of dexamethasonetreated cells with melatonin (10⁻⁷M,10⁻⁸M) reduced the Ishikawa cell viability as compared to cells incubated with dexamethasone alone (10⁻⁷M). For the first time, we showed that following synchronization with serum shock, Ishikawa cells expressed Bmal-1, Clock, Per-2, Cry1 in an oscillatory manner with a peak observed every approximately 36h. Interestingly, MT-1 and GR α also exhibited almost the same oscillaroty expression pattern. Incubation of Ishikawa cells with dexamethasone at concentration 10-7did not affect the oscillatory pattern of Clock, Per-2, Cry, while it decreased the amplitude of Cry-1 expression at 18h of incubation. However, dexamethasone disrupted the pattern of Bmal-1 expression, mainly by increasing the frequency of oscillations; this effect was reversed by coincubation with RU-486 implying a GR-mediated effect. Notably, melatonin at concentration of 10⁻⁸M reversed the disruption of Bmal-1 expression pattern, without changing the GRa expression. Long-term incubation with melatonin alone at both concentrations did not affect significantly the oscillatory pattern, however at the highest concentration appeared to increase the amplitude of the oscillation in Bmal-1, Clock, Per-2, Cry-1 expression (approximately by 27%, 127%,83% and 73% respectively) with more robust effect at 18h of incubation (first peak).

Conclusion

Melatonin ameliorates the glucocorticoid-induced invasiveness of human endometrial cancer cells possibly through reversing the glucocorticoid-induced disruption of circadian clock system. Further studies need to confirm the causal

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EP938

Importance of karyotyping in the evaluation of male hypogonadism Ei Thuzar Aung¹, Sanjana Srinivas², Helmine Kejem³ & Upendram Srinivas-Shankar³

¹Whiston Hospital, St Helens and Knowsley Teaching Hospitals NHS Trust,

Department of Diabetes and Endocrinology, Prescot, United Kingdom; Whiston Hospital, St Helens and Knowsley Teaching Hospitals NHS Trust, Prescot, United Kingdom; ³Arrowe Park Hospital, Wirral University Teaching Hospital NHS Trust, Department of Diabetes and Endocrinology, United Kingdom