European Society of Pathology

30th European Congress of Pathology

Pathology: Path to Precision medicine

8 – 12 September 2018
Euskalduna Conference Centre, Bilbao, Spain

www.esp-congress.org

Abstracts

translocation of the AR to the nuclei, preventing its transcriptional activity. Among the mechanisms postulated to confer hormone resistance, is the up-regulation of genes encoding steroidogenic enzymes like CYP17A1.
Method: We immunohistochemically investigated the expression of CYP17A1 enzyme in parallel with AR nuclear expression, in a series of prostate cancer tissue form patients treated with prostatectomy.
Results: CYP17A1 was strongly expressed in the cytoplasm of prostate cancer cells, ranging from 0% to 100% of cells (median 50%). Thirty cases out of 53 (56.6%) expressed CYP17A1 in more than 50% of their tumour cells. The nuclear AR expression in cancer cells ranged from 0-90% among cases (median 30%). Out of 53 cases, 20 (37.7%) showed expression of the AR in more than 50% of cancer cells. A strong significant direct association between CYP17A and nuclear AR expression was noted ($p<0.0001$; $r=0.51$). This was confirmed in confocal immunofluorescent microscopy, where the nuclear expression of phosphorylated (active form) of AR was directly related to cytoplasmic expression of CYP17A1. Analysis of CYP17A1 expression according to histopathological variables, did not show any association with T-stage, Gleason score or PSA levels.
Conclusion: CYP17A1 steroidogenic enzyme is strongly expressed in half about of human prostate carcinomas, implying an intracellular androgen synthesis by cancer cells. CYP17A1 expression could have a value as a biomarker for the treatment of hormone refractory disease with specific CYP17A inhibitors.

E-PS-08-030
A rare case of cystic hemangioma of the adrenal gland
D. Anestakis*, G. Hahalis, C. Nikolaidou, M.-E. Givannakis, N. Raikos, C. Tsompanidou
*Aristotle University Thessaloniki, Necrotomic Histopathology, Greece

Background & Objective: Cavernous hemangiomas of the adrenal gland are rare. Since the first cavernous hemangioma of the adrenal gland was surgically removed in 1955, only 64 cases have appeared in the medical literature. While there are certain features suggestive of the diagnosis, they fall short of being diagnostic. This lack of specificity in pre-operative studies often prevents a conclusive exclusion of malignancy from the differential diagnosis. We report the morphologic and immunohistochemical features of a case of cystic hemangioma that occurred in a woman.
Method: A 19-year-old female presented to our hospital with a short history of abdominal pain. CT showed a well-defined lesion in the middle of the right adrenal gland and MRI images are showed a multi-cystic mass on the right adrenal gland. The patient underwent open right adrenalectomy.
Results: Macroscopically the lesion consisted of a well-circumscribed mass measuring 8x6x4 cm. with small and large cysts filled with serous and hemorrhagic fluid. Microscopically the cysts filled with blood and lined by flat endothelial cells with no atypia and no mitosis. These cells were positive with CD34. Among these cysts there was tissue of normal adrenal gland and foci of fibrous tissue with calcifications. There was no evidence of malignancy. According to these histological features this mass was diagnosed as cystic hemangioma of the adrenal gland.
Conclusion: We conclude that preoperative recognition of cystic hemangioma which has an excellent outcome might help surgeons approach the patient conservatively.

E-PS-08-032
Gastrointestinal metastasis of primary thyroideal eptihelioid angiosarcoma with CYP2D6 c.506-1G>A polymorphism: molecular and immunophenotypical characterisation
E. Sanfeliu*, A. Martinez, A. Diez-Caballero, A. Flor, I. Ramos, J. Capdevila, C. Llebaria
*Centro Medico Teknon, Pathology, Barcelona, Spain

Background & Objective: Thyroid epithelioid angiosarcoma is a rare highly aggressive malignant vascular tumour, mainly seen in the Alpine region and few cases are described in non-Alpine patients. The t(1;3)(p36.3;q25) translocation is present some cases studied, leading to CAMTA1 expression by IHC. Further molecular characterization has yet to be done.
Method: A 62 years old non-Alpine white patient, with ulcerative colitis and underwent left hemi-thyroidectomy for a benign pathology (by clinical records). Subsequent two biopsies one year and fourth month after render a diagnosis of undifferentiated carcinoma in left laterocervical region. The patient consulted by gastrointestinal bleeding and endoscopic biopsies revealed metastasis of undifferentiated carcinoma. An intestinal resection was made. We review clinical, histological and molecular studies from OncoDEEP™.
Results: The histologic study showed arrangements of polygonal cells with prominent nucleoli and atypical mitosis in cleft-like spaces. Tumour cells were positive for endothelial markers such as CD31 and Factor VIII and expressed CAMTA1. The review of previous biopsies, including thyroidectomy specimen, showed similar features. The patient progressed with locoregional disease and bone metastasis and died after eighteen months from first surgery. The molecular study demonstrated a polymorphism CYP2D6*4 c.506-1G>A variant, which is found in pituitary and papillary thyroid tumours.
Conclusion: We present an atypical non-Alpine presentation of this rare neoplasm presenting with bleeding from intestinal metastasis leading to the diagnosis of a primary tumour located in the thyroid gland. The presence of a CYP2D6*4 is associated with cancer risk and may be related with the peculiar geographic distribution of this rare form of neoplasm.

E-PS-09 | Gynaecological Pathology

E-PS-09-001
Peculiar features of CEACAM1 and E-cadherin expression in the uterus
M. Lyndin*, A. Romaniuk, V. Sikora, N. Gyryavenko, O. Kravtsova, V. Panchenko, Y. Lyndina, B. B. Singer
*Sumy State University, Pathology, Ukraine

Background & Objective: The aim of our study was to characterize the expression pattern of carcinoembryonic antigen related cell adhesion molecule 1 (CEACAM1) and E-cadherin in normal, hyperplastic and tumour tissues of the uterine, and to determine the potential correlation between these two adhesion molecules.
Method: 45 samples of the uterine tissue (normal, hyperplastic and tumour tissues) were selected for the study. The presence of CEACAM1 (C5-1X8–0.1μg/ml) and E-cadherin (EP700Y–0.5μg/ml) receptors was detected by the immunofluorescence analyses.
Results: E-cadherin is expressed on the basal surface and in the intercellular contacts by all cells of the normal endometrium and under the hyperplasia. The endometrial adenocarcinoma tissues showed a variable E-cadherin expression: basal-intercellular – under formation the glands by the neoplastic cells, entire membranous – under the solid growth of cancer cells and the decreasing expression – when the malignant progression is developing. Conversely, the CEACAM1 receptors are present on the apical surface of the normal and pre-tumour tissues of the uterus. They appear in the cytoplasm when the anaplasia level of the neoplastic cells is increased. It was determined that E-cadherin-positive cells are present when there is no CEACAM1 receptor expression.
Conclusion: The endometrial tissue shows a variable expression of CEACAM1 and E-cadherin receptors depending on the pathological changes in the uterus. Different patterns of these proteins indicate the absence of any functional correlation between them. However, the alterations of both protein location from cell membrane to their

disappearence or translocation into cytoplasm seems to represent novel markers for the appearance and development of the neoplastic process.

E-PS-09-002

The aggressive EpCAM+CD45+ phenotype in serous epithelial ovarian cancer

V. Maffeis*, L. Nicolè, A. Grego, C. M. Radu, P. Simioni, A. Fassina
*University of Padova, Dept. of Medicine, Italy

Background & Objective: Epithelial ovarian cancer (EOC) is the leading cause of death for gynaecological malignancies, especially in western countries. Recently, Akther and colleagues identified a haemato (CD45) - epithelial (EpCAM) phenotype of serous EOC with aggressive features, both in ascitic fluid and primary tumours. This phenotype is drug-resistant (versus EpCAM+ neoplastic cells), highly invasive (mesenchymal gene expression) and consists of subpopulations of ovarian cancer stem cells (CD133+ and CD117+CD44+) with MCH I over-expression (ability to evasion of immune surveillance). These features suggest a possible role for EpCAM+CD45+ phenotype in development of peritoneal carcinomatosis and multi-drug resistance. Aim of the present study was to investigate EpCAM+CD45+ phenotype in EOC tissue samples of primary tumour, in ascitic fluid and, for the first time, extraovarian implants.
Method: EpCAM+CD45+ phenotype was assessed by immunohistochemistry (serial sections of FFPE samples were digitalized and then aligned to assess the co-localization) and confirmed by immunofluorescence in 5 cases of serous EOC. These results will be integrated and stratified using clinical and follow-up data (available for all 60 patients enrolled). Immunohistochemistry in the large series is in progress.
Results: EpCAM+CD45+ phenotype was found in extra-ovarian implants in all (5/5) investigated cases and in 60% (3/5) of primary tumours. Interestingly, the two discordant cases showed EpCAM+CD45+ phenotype only after chemotherapy (in all cases the positivity consisted of isolated small groups of cells).
Conclusion: Our preliminary findings showed that EpCAM+CD45+ phenotype was present in extra-ovarian implants of EOC, further supporting the role of this neoplastic phenotype in EOC carcinomatosis. The results will be confirmed on the complete cohort.

E-PS-09-003

Glandular carcinomas of the endocervix: a clinicopathological review – experience of a tertiary referral centre

R. Amorim*, C. Estima Fleming, M. Marques Oliveira, L. Ferreira, N. J. Lamas, J. R. Brandão, B. Fernandes, F. Moreno, A. Duarte, J. R. Vizcaíno
*Centro Hospitalar do Porto, Serviço de Anatomia Patológica, Portugal

Background & Objective: We aimed to report the experience of endocervical adenocarcinoma diagnosis in a tertiary gynaecological referral centre.
Method: All endocervical adenocarcinomas diagnosed over a ten-year period (2008-2018) were reviewed. Histopathological features, association with Human Papilloma Virus (HPV) infection and clinical data were evaluated.
Results: Of the 23 cases retrieved, 10 were classified as adenocarcinoma NOS, 5 as endocervical adenocarcinoma, usual type, 3 as endometrioid carcinoma, 3 as villoglandular carcinomas, 1 as mucinous carcinoma, gastric type and 1 as adenocarcinoma in situ. The mean age at diagnosis was 48 years (30-80). HPV genotyping was performed in 4 cases, all positive for high-risk HPV genotypes (hrHPV). The majority of the cases (21, [91.3%]) represented invasive disease (stage I to III – most of them were stage I), whereas 1 (4.35%) was in situ and 1 (4.35%) had unknown stage. Only one patient died due to adenocarcinoma.
Conclusion: Our results do not parallel the classification reported in the literature, where endometrioid carcinomas are rare and account for no more than 5% of all endocervical adenocarcinomas. In our department, they account for nearly 13%. This difference might be associated with patient selection bias, population based susceptibility and a small sample size. In terms of HPV infection, all the adenocarcinomas tested for hrHPV had positive results. Most of our cases were detected in an early stage which was associated with a high survival rate.

E-PS-09-004

Uterine florid cystic endosalpingiosis

R. Machado-Neves*, J. dos Santos, T. Amaro, M. Honavar
*ULSMatosinhos, Pathology, Matosinhos, Portugal

Background & Objective: Endosalpingiosis is a rare benign entity, characterized by tubal epithelium outside the fallopian tube. It has been described since 1930 in multiple organs. Florid cystic endosalpingiosis (FCE) is a rare presentation in the uterus. We report a case of uterine FCE.
Method: Clinical history, radiological exams, macroscopic and histological features have been reviewed.
Results: 56-year-old woman with metrorrhagia and endometrial thickening, was submitted to three hysteroscopies and resections of endometrial polyps of over a period of 15 months. Abdominal CT scan showed a 33 mm endometrial polyp and a tubular, serpiginous structure of 60 x 28 mm adjacent exteding into the myometrium, suggestive of a haematosalpinx. She underwent a total hysterectomy: the uterus (101 g) was enlarged with a thin-walled collapsed cyst on the serosal surface of the fundus which communicated with a solid and cystic mass measuring 75 x 50 x 40 mm, traversing the full thickness of the myometrium to present as a polyp within the endometrial cavity. Ovaries contained benign serous cysts and fallopian tubes were normal. Microscopically there were cystic spaces of varying sizes lined by simple cuboidal and ciliated tube-type epithelium. No cytologic atypia was seen. The stroma between the glands and cysts was fibromuscular, with no evidence of endometrial stroma.
Conclusion: ECF of the uterus is a rare disease of unknown etiology, with indication for conservative treatment. The differential diagnosis includes benign entities (including mullerianosis, adenomyosis, florid mesonephric hyperplasia) and adenocarcinoma.

E-PS-09-005

Ovarian masses in children and adolescents: a case series

N. Redissi*, R. Jouini, F. Khanchel, W. Koubaa, R. Benabdallah, A. Chadli Debbich, E. Benbrahim
*Hopital Militaire Tunis, Pathology, Tunisia

Background & Objective: Ovarian masses in children and adolescents are unique due to their rarity and controversial management. Their incidence is estimated at 2.6 cases per 100,000 girls per year, and malignant ovarian tumours account for 0.9% of all childhood and adolescent malignancies. Although benign masses are more common than malignant ones, it is imperative to diagnose malignancy at an early stage by various multimodal diagnostic methods. The purpose of this study is to report a series of ovarian masses in children and adolescents and to describe clinicopathological aspects of these lesions.
Method: All ovarian masses in children and adolescents resected or biopsied in Habib Thameur Hospital from 2001 to 2018 were reviewed retrospectively. Patient's age, pathological data and outcome were obtained from medical records.
Results: Results 29 cases of ovarian masses were found: 7 mature teratomas, 4 serous cystadenomas, one mucinous cystadenoma, 5 serous cystadenofibromas, one endometriotic cyst, 7 follicular cysts, 2 cases of dysgerminoma, one case of gonadoblastoma, one case of juvenile granulosa cell tumour and one unclassified tumour. The age of patients was varying between 19 days and 16 years. The distribution of ovarian masses