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vascular placental lesions. Links between preeclampsia and oxidative stress in trophoblast and endothelium were described and have investigated the role of complement system in these placenta

Methods: 34 placentas from patients with severe preeclampsia (PE) diagnosed before week 32 of pregnancy were obtained. The control group was 10 placentas of women without a diagnosis of hypertension or preeclampsia. Placental specimens obtained were processed and microscopic section were stained for H&E and PAS, as well as for immunohistochemical stains for CD61 (platelet thrombi) and C4d (complement component).

Results: PE group revealed thickened wall of foetal blood capillaries, crowded degenerating villi with decreased intervillous spaces, intravillous and perivillous fibrinoid deposition. Numerous syncytial knots and there was thickened layer of subchorionic fibrinoid. In addition, PE group showed atherosis, swollen endothelial cells and intracapillary thrombi with CD 61 immunomarking and C4d deposit.

Conclusion: Our results show a relationship between PE, lesions in vascular lesions with activation of the complement cascade and C4d deposit. Identification of mechanisms involved in the triggering of endothelial dysfunction may be a promising therapeutic approach in management of PE.

PS-02-038

Co-expression of GATA-3 and PAX-8: a diagnostic pitfall

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Background & objectives: Immunohistochemistry is invaluable in establishing the origin of a poorly differentiated primary tumour or metastatic carcinoma. Overlapping/atypical staining patterns are a common pitfall. Our objective was to ascertain the frequency of tumours co-expressing Müllerian marker PAX-8 and breast/urothelial marker GATA-3.

Methods: We performed a search on our internal pathology I.T. system (CoPath) for all specimens from 2015-2019 on which PAX-8 and GATA-3 immunostains were performed. We then collated the cases which expressed both markers and reviewed the final diagnoses on the pathology reports.

Results: PAX-8 and GATA-3 immunostains were performed on 228 surgical and cytological specimens. 22 tumours expressed both markers. The final histological diagnosis in 12/22 cases (54.5%) favoured tumours originating in the gynaecological tract; most of these were high-grade (8/12) and of tubo-ovarian origin (6/12), while 2/12 were uterine, 1/12 was cervical and for 3/12 the particular site of gynaecological origin was uncertain. 8/22 cases (36.5%) were diagnosed as poorly differentiated/high grade carcinoma where the site of origin could not be determined; 3/8 of these cases had a background history of previous ovarian or endometrial cancer. 1/22 (4.5%) was diagnosed as high-grade urothelial carcinoma and 1/22 (4.5%) as malignant epithelioid tumour.

Conclusion: Immunohistochemistry is commonly used to establish the origin of poorly differentiated or metastatic tumours. PAX-8 is positive in approximately 80% of Müllerian tract-derived carcinomas. GATA-3 is positive in 94% of breast and 86% of urothelial carcinomas. Our study highlights potential diagnostic pitfalls when both markers are positive, particularly in the diagnosis of gynaecological tract malignancy, and supports previous findings of GATA-3 positivity in a subset of endometrial and ovarian carcinomas.

PS-02-039

Mismatch repair deficiency in uterine carcinosarcoma - a 20 year retrospective review: 18 cases tested

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Background & objectives: Immunohistochemistry for mismatch repair (MMR) proteins is recommended in endometrial carcinomas as a screening test for Lynch Syndrome. Carcinosarcomas are staged and treated like other epitelial malignancies, however few studies have evaluated the rate of MMR loss in uterine carcinosarcomas.

Methods: A 20 year retrospective database search of uterine carcinosarcomas was performed at our institution. The histologic diagnoses were confirmed by a gynaecologic pathologist. One tissue section from each case was stained with the 4 MMR proteins (MLH1, PMS2, MSH2, MSH6) and p53.
Heterologous elements and lymphovascular invasion were noted if present.
Clinical features were collected.

Results: 18 cases of uterine carcinosarcoma were identified. 16 cases showed intact expression and 2 mismatch repair deficiency (MMRd) with loss of MSH6 and aberrant p53 expression. 12 of the total number of cases showed aberrant p53 expression. 3 cases showed wild-type p53 expression. 2 cases of Lynch Syndrome were identified among carcinosarcoma patients. Nowadays 17 patients are alive and 1 dead and 1 patient with loss of MSH6 had colorrectal carcinoma.

Conclusion: The rate of MMRd is lower in uterine carcinosarcoma when compared with endometrioid carcinoma. In the setting of MMR loss, a diagnosis of dedifferentiated carcinoma should be considered. Understanding how MMRd contribute to carcinosarcoma pathogenesis is relevant not only for identifying Lynch síndrome and prevent the development of colorectal cancer but also for identifying candidates for immunotherapy, as defects in MMR have been shown to impart vulnerability to checkpoint inhibition.

PS-02-040

Peculiarities of vascularisation of serous adenocarcinoma of fallopian tubes

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Background & objectives: Sometimes it is difficult to estimate the degree of neoplastic vascularization. It can be achieved by using the immunohistochemical studies of CD31 receptors.
To study the peculiarities of the serous adenocarcinoma of fallopian tubes (SAFT) vascularization.

Methods: The study was carried out on 66 samples of tumour tissue of serous adenocarcinoma of fallopian tubes. For study the CD31 expression, the rat monoclonal antibodies 1A10 were used.

Results: In well-differentiated tumours, the structured focal localization of the vessels in papillary formations, which were observed gradually disappeared in the papillae branched. While neoplasia dedifferentiation, the disorders of tumour tissue vascularization with chaotic vessels localization were found. Despite the data on the degrees of microvascular density in different types of carcinoma in case of malignant process development, areas with pronounced microvascular density as well as non-vascular tumour lesions were observed.

Conclusion: The tissue of SAFT is characterized by the structured vascularization of neoplastic tissue with its gradual disorganization under carcinoma dedifferentiation. These results can be used to predict the tumour course, considering the influence of the increased angiogenesis on cancer metastasis and the possibility of using the vascular-suppressant treatment in antitumour therapy.

PS-02-041

Antenatal foetal vascular malperfusion is a placental factor for term preeclampsia

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Background & objectives: Currently, there is evidence that late preeclampsia (PE) in full-term pregnancy is more due to metabolic and