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# 30<sup>th</sup> European Congress of Pathology

*Pathology: Path to Precision medicine*

**8 – 12 September 2018**

Euskalduna Conference Centre, Bilbao, Spain

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**Abstracts**

leiomyoma that grew in whorled fascicles of uniform smooth muscle cells without cellular atypia, mitosis, or necrosis. In the intramural veins an intravascular growth of benign smooth muscle cells were found. Immunohistochemical profile were reactive for smooth muscle markers: Actin, desmin. Ki67 proliferation index were around 2% in the usual leiomyoma and in the intravascular tumour. A diagnose of a uterine leiomyoma associated to an intravascular leiomyomatosis was reported. Surgical margins were uninvolved.

**Conclusion:** Intravascular leiomyomatosis is a rare tumour that is characterized by smooth muscle benign masses growing within the veins, that can reach the right heart through the uterine veins. It probably arises from the vein walls or spreading of a primary leiomyoma into the adjacent venous structures. The main differential diagnosis is a leiomyosarcoma with vascular invasion and a preoperative diagnosis can not be made. Complete resection are curative.

#### E-PS-09-019

##### CEACAM1 investigations in the vessels of the reproductive system organs

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**Background & Objective:** The aim was to investigate the presence of carcinoembryonic antigen related cell adhesion molecules 1 (CEACAM1) in the vessels of organs of the reproductive system and to define peculiar features of their expression depending on the type of tissues as well as vessels and the presence of vascular endothelial growth factor (VEGF).

**Method:** We studied the samples of normal and tumour tissues of the uterus, fallopian tubes, ovaries, breast, the prostate and testis. To determine the type of vessels, analyses of the samples on CEACAM1, CD31, Podoplanin and VEGF receptors were conducted.

**Results:** All the vessels in the investigated organs showed positive CD31 expression. Among them, a small amount of Podoplanin-positive vessels was detected. VEGF receptors were present in some vessels of the normal tissue but in most tumour vessels. The CEACAM1 expression was observed in endothelial cells of the thin-walled vessels (the arterial vessels were negative), which were both Podoplanin-positive and -negative. The VEGF-positive vessels showed also CEACAM1 expression in the endotheliocytes. A significantly larger amount of CEACAM1-positive vessels was detected in the prostate, fallopian tubes and ovaries rather than in the uterus, testis and breast.

**Conclusion:** The CEACAM1-positive vessels are present in all the organs of reproductive system. These protein receptors were observed in some amount of the lymphatic vessels and veins. Both normal and tumour tissues contain an irregular amount of CEACAM1-positive vessels. CEACAM1 expression was also detected in a part of VEGF-positive endotheliocytes. However, the CEACAM1 expression in vessels is not limited to neo-angiogenic endothelium as described by others.

#### E-PS-09-021

##### Bilateral luteinised ovarian thecoma with sclerosing peritonitis

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**Background & Objective:** We present the case of a 79 years old Caucasian woman who was admitted to the accident and emergency department with the signs and symptoms of intestinal obstruction. At laparotomy she was found to have bilateral ovarian masses with adherence to the omentum and bowel loops. She underwent a bilateral salpingo-oophorectomy, omentectomy and appendicectomy. Histology and immunohistochemistry confirmed bilateral luteinized thecoma and

sclerosing peritonitis. We present the case for its rarity and consequent favourable outcome after more than 3 years of follow up.

**Method:** 38 blocks were sampled from the ovarian masses, uterus, tubes, peritoneum, omentum and appendix. These were routinely processed for histology and stained with antibodies for Vimentin, Actin, Desmin, CD56, Inhibin, MNF116, CAM5.2, EMA, Calretinin and Eostrogen receptors. A sample from the tumour was studied for FOXL2 mutation.

**Results:** Histology showed a spindle cell proliferation bearing 8-10 mitoses per 10 high power fields with an admixture of clustered cuboidal and eosinophilic cells. The spindle cells were positive for Vimentin only. The cuboidal cells were strongly positive for Calretinin, Inhibin, CD56, and oestrogen receptors in keeping with luteinized cells. Molecular analysis of the FOXL2 gene locus showed wild type sequence.

**Conclusion:** A case of bilateral ovarian luteinized thecoma with sclerosing peritonitis is presented with immunohistochemical findings and molecular analysis for FOXL2 mutation. The patient remains alive and disease free more than 3 years after discharge from hospital

#### E-PS-09-022

##### Extra-intestinal presentation of GIST: a report of two cases

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**Background & Objective:** Gastrointestinal stromal tumour (GIST) at extra-abdominal or retroperitoneal sites is rare, and diagnosis may be challenging.

**Method:** We report 2 cases presenting to gynaecological services.

**Results:** The first case is a 51years old with a posterior vaginal wall mass, which showed no connection to the rectum on MRI. Macroscopically, a 3.7cm fleshy white circumscribed mass was present, with overlying elevated intact vaginal mucosa. Histology showed a circumscribed spindle cell neoplasm, with variable cellularity and prominent nuclear palisading. Mitotic count was variable, with up to 7 mitoses per 10 hpfs. Necrosis was absent. Immunohistochemically, tumour was positive for c-KIT, DOG1 and CD34. An exon 9 KIT mutation was detected and diagnosis of extraintestinal GIST, high-risk, was made. The second case is of a 75-years old with pelvic discomfort. CT showed a large pelvic mass with intra-abdominal metastases present. Omental biopsy revealed a tumour composed of monomorphic small round cells with clear cytoplasm, in a myxoid stroma. Necrosis was absent. Immunohistochemically, the tumour was positive for DOG1 and Ckit. Ki67 proliferative index 10%. PDGFRA exon 18 mutation was detected. The morphology and immunophenotype were of an intra-abdominal epithelioid GIST. Subsequent resection confirmed a diagnosis of Epithelioid GIST, High-risk, likely arising from small bowel, with involvement of omentum, pelvis and transverse colon.

**Conclusion:** Extraintestinal GISTs are unusual. We present two cases with gynaecological presentation and highlight necessity of broad immunohistochemical panel, supported by molecular analysis, to make the diagnosis.

#### E-PS-09-023

##### Nitrogen fractionation processes in germ cell tumours in the light of the most modern method of direct cancer tissue investigation

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**Background & Objective:** Isotope Ratio Mass Spectrometry (IRMS) represents the advance technique which currently has been proved to be applicable for cancer research. Although the most modern analytical methods are expected to play a leading role in biomedical research in future, it is important to realize what kind of practical value they present for cancer patients. IRMS offers the highest level of required expertise and it also met the highest requirements concerning measurement quality