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, alfa-smooth muscle actin, S100, CD99, calretinin, inhibin-alpha, melan A, CD56 and were steroid hormone receptor negative.

Conclusions: Although idiopathic hirsutism and other benign androgen excess disorders like polycystic ovarian syndrome are common, the presence of an ovarian mass in younger patients should raise suspicion of Leydig cell tumor or other steroid cell tumors. This case confirms that Reinke crystal quest should always be tenacious.

PS-03-09

Benign multicystic peritoneal mesothelioma: report of two cases

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Objective: Benign multicystic peritoneal mesothelioma (BMPM) is a rare neoplasm which is considered as a clinically borderline variant between the benign adenomatoid tumor and malignant mesothelioma because of its potential for recurrence. We describe two cases of BMPM based on histology and immunoprofile.

Material and Methods: In both cases, patients were females (17 and 15 year-old) with a history of low abdominal pain. Surgery was performed based on ultrasonography findings of cysts in the abdominal cavity in the first case, and right paraovarian region in the second case. The operative material in one of the cases consisted of resected omental segment with translucent, multilocular cysts, containing serous, gelatinous fluid, and in other case, the operative material consisted of two multilocular cysts.

Results: Microscopic examination showed that the cysts' inner surfaces were lined with flattened or uniform cuboid cells, with oval or fusiform nuclei and scarce cytoplasm, lying on a layer of acellular collagen connective tissue. The immunohistochemical staining showed that the lining cells were positive for calretinin, pan-cytokeratin, vimentin and epithelial membrane antigen and negative for carcinoembryonic antigen and CD34. Two years after surgery recurrence of the disease was diagnosed in one of the patients.

Conclusions: Due to rarity of BMPM, similarity of patients' presentation and comparable features on imaging, diagnosis of this entity is difficult and is based on histological findings.

PS-03-10

Follicular variant of papillary thyroid carcinoma arising in struma ovarii: a case report

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Objective: Struma ovarii is a rare form of ovarian mature teratoma and is the most common type of monodermal teratoma (3% of all ovarian teratomas). 5-10% of such tumors are malignant with papillary carcinoma as the most common type (70%) while 26% of them are a follicular variant of papillary thyroid carcinoma (FVOPTC). We report a case of FVOPTC arising in struma ovarii focusing on the clinical, histopathological and immunohistochemical features.

Material and Methods: A 29-year old nulliparous female underwent laparoscopic surgery of a 7 cm a large right ovarian cyst, diagnosed by ultrasound. Clinically and biochemically she was euthyroid with normal serum TSH level, and without previous significant medical or gynecological history.

Results: Grossly, a laparoscopically obtained material consisted of 8x3 cm fragment of cyst wall measuring 0.2 to 0.6 cm in thickness with a focus of 5 mm large grayish-white tumor. Histology of the cyst wall showed thyroid tissue characteristic of cystic struma ovarii while the tumor showed typical nuclear features of papillary thyroid carcinoma with follicle formation and minimal presence of papillary structures typical for FVOPTC arising in thyroid tissue. Immunohistochemical staining showed positive expression for thyroglobulin, TTF-1, and cytokeratin-19 in the tumor cells.

Conclusions: FVOPTC arising in struma ovarii is difficult to assess because it is a rare tumor with about 60 published cases and lacking standard criteria for diagnosis. Thus, the morphological criteria for the diagnosis of this tumor are based on classical criteria for primary thyroid carcinoma. Prognostically, FVOPTCs measuring less than 2 cm arising in struma ovarii are considered as low-risk lesions with a low rate of recurrence and metastasis.

PS-03-11

Serous adenocarcinoma of the fallopian tube: a case report

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Objective: Primary serous adenocarcinoma of the fallopian tube (PSAFT) is a rare tumor which histologically and clinically resembles epithelial ovarian cancers. Although it has been postulated that both ovarian and tubal high-grade serous carcinomas actually share common histogenesis, PSAFT has a worse prognosis than ovarian cancer. We report a case of PSAFT that presented clinically as hydrosalpinx.

Material and Methods: A 62-year-old patient with complaints of a low abdominal pain and vaginal discharge was admitted at the gynecological department. During the diagnostic procedure, the ultrasound examination revealed uterine fibroid and a right-sided hydrosalpinx. The patient underwent hysterectomy with bilateral adnexectomy. Due to the clinical assessment of benign disease, no tumor markers were required preoperatively, nor biopsy from the omentum and parietal peritoneum, as well as peritoneal washing, were obtained intraoperatively. The operative material was routinely dissected and a standard procedure for histology and immunohistochemistry was performed.

Results: The right tube was tortuous, 17 cm in length, having 5 cm long dilatation in the proximal third. In the dilated part, few exophytic, neoplastic, white-grayish soft lesions were found. The histopathologic examination revealed areas of in situ as well as high-grade PSAFT with lamina propria involvement. The malignant cells were positive for CK7 and WT1. The tumor did not infiltrate the muscle layer, so it was defined as FIGO stage IA. The leiomyoma previously diagnosed by ultrasound was histologically confirmed, while the left adnexa and right ovary revealed regular morphology and were free of tumor. Two months after the operation the patient is in good health and disease-free.

Conclusions: PSAFT should be distinguished as a different clinical entity from primary ovarian epithelial neoplasms so that the patient could receive adequate therapy and follow-up.