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208 COMPARISON OF BRCA MUTATION TESTING IN BLOOD AND TUMOUR SAMPLES FROM PATIENTS WITH HIGH GRADE SEROUS OVARIAN CARCINOMA

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Introduction Patients with high grade serous ovarian carcinoma (HGSOC) who harbour BRCA1 and BRCA2 mutations respond better to PARP inhibitor treatment. BRCA mutations can be germline, somatic or both. Germline BRCA mutation is tested on blood samples while testing tumour tissue can detect both somatic and germline mutations. There is no difference in responsiveness to PARP inhibitors between germline and somatic BRCA mutated HGSOC.

Methods We analysed 53 HGSOC patients who underwent both germline BRCA mutation blood testing and formalin fixed paraffin embedded tumour tissue BRCA (tBRCA) mutation testing. Both the tests were performed by Next Generation Sequencing. We compared the incidence of germline and tBRCA mutations.

Results The tBRCA mutation test failed in 19/53 patients (35.8%). Amongst the remaining 34 patients, germline BRCA mutation was detected in 3 patients (8.8%); while 6 patients (17.6%) had a tBRCA mutation.

BRCA1 mutation was identified in 3 patients (8.8%). 1 of these cases (33.3%) had a germline mutation and tBRCA was present in all 3 cases (100%).

BRCA 2 mutation was present in 3 patients (8.8%), with 2 of these cases (66.7%) being identified as germline mutations and all 3 had tBRCA mutation (100%).

While 3 patients (8.8%) had both germline and tBRCA mutations, 3 patients (8.8%) had only tBRCA mutations without germline BRCA mutation which may have been somatic mutations.

Conclusion Our study highlights the importance of performing BRCA mutation testing on both blood and tumour tissue samples in patients with high grade serous ovarian carcinoma.

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209 CASE REPORT OF A COVID 19 PATIENT PRESENTING WITH ACUTE ABDOMEN AND DIAGNOSED TO HAVE HIGH GRADE SEROUS OVARIAN CARCINOMA

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Introduction Acute abdominal pain is a rare presentation of the coronavirus disease 2019 (COVID-19). The effect on the gynaecological tract is not well known. We present a COVID-19 case admitted with abdominal pain and diagnosed to have ovarian cancer.

Methods Clinical details were retrieved using electronic health record system. COVID-19 PCR swab test was performed using the Real-time SARS-CoV-2 Assay. Hematoxylin-Eosin, Martius Scarlett Blue stains, C3 and C4d immunohistochemical stains and RNAscope test were performed on the tube, ovary and omental tissue.

Results A 46 yr old known asthmatic presented to the emergency department with acute abdominal pain. On examination, she was febrile with a tender abdomen. Chest X-Ray showed bilateral patchy lower zone opacification. Abdominal ultrasound scan revealed a 151 × 148 × 55 mm pelvic mass. COVID-19 swab test requested just prior to the surgery came back positive.

She had increased C-reactive protein with normal blood coagulation parameters.

She underwent emergency unilateral salpingo-oophorectomy with omentectomy. Pathology revealed a high grade serous ovarian adenocarcinoma.

Immunohistochemistry showed a linear pattern of C4d complement localized to omental capillary endothelial cells. C3 stain was negative. Martius Scarlett Blue stain did not show microthrombi. RNAscope failed to reveal coronavirus in the tissue.

Conclusion Our case contributes to the knowledge of atypical Covid-19 presentations. Complement split product C4d is a known pathological marker of antibody mediated rejection. While the presentation of ovarian cancer as acute abdomen could be co-incidental, C4d complement deposition in our case may suggest its role in COVID 19 pathogenesis.

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210 CLINICAL AND ULTRASOUND CHARACTERISTICS OF NEUROENDOCRINE TUMORS OF GYNAECOLOGIC TRACT

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Introduction To identifying clinical and ultrasound features of Neuroendocrine neoplasia (NEN) of the gynecologic tract.

Methods Retrospective study. Clinical and ultrasound characteristics of patients with histological diagnosis of NENs of the gynecologic tract from January 2015 to November 2019 were described. One author reviewed ultrasound images and described them using pattern recognition.

Results 50 patients were included. The median age was 52 (14–93) years. Thirty-nine (78%) were symptomatic, the most common symptom was vaginal bleeding (in 21/50, 54%). At ultrasound examination, most primary ovarian NEN appeared as unilateral (9/10, 90%), purely solid (8/10, 80%) with moderate or rich vascularization (7/10, 70%). Most metastatic ovarian NENs were bilateral (10/15, 67%), purely solid (100%) with irregular margins (14/15, 93%) and rich vascularization (13/15, 87%). NENs of the cervix were most frequently hypoechoic solid tumor (7/15, 47%) with irregular margins in all cases and most of them were richly vascularized (9/15, 60%). NENs of the endometrium were hypoechoic solid mass in 3/8 (37%). All cases showed irregular margins and most of them (62%) were minimal vascularized. Pattern recognition revealed that in 90% of primary ovarian NENs anechoic areas were presented. About cervical NENs the typical image was a solid tumor presenting multiple hyperechoic spots. No typical ultrasound feature was observed for endometrial cancer.

Conclusion At ultrasound examination, both primary ovarian NENs and metastatic NENs to the ovary appear as irregular