apatinib combined with chemotherapy plus PD-1 antibody drug (2/26), and apatinib combined with PD-1 antibody drug (9/26) and apatinib combined with chemotherapy plus radiotherapy (1/26). The median follow-up time was 5 months. The ORR and DCR were 47.3%(9/19) and 94.7%(18/19). The median PFS was not reached.

In addition, 23 pts with ovarian cancer were enrolled in this study. Among them 15 pts were platinum-sensitive, 8 pts were platinum-resistant. The treatment regimens were: apatinib combined with chemotherapy (19/23), apatinib monotherapy (1/23), apatinib combined with chemotherapy drugs plus PD-1 antibody drug (1/23), apatinib combined with PD-1 antibody drug (1/23) and apatinib combined with PARPi (1/23). The median follow-up time was 6 months.The median PFS was 4 months.The ORR and DCR was 14.3%(3/21) and 85.7%(18/21).

In this real-world study, the incidence of adverse reactions of ovarian cancer and cervical cancer was 79.6%. Grade 3 neutropenia, leukopenia, anemia, proteinuria and thrombocytopenia were observed in 2, 1, 5, 2 and 3 pts.

Conclusion* In this real-world study, apatinib showed a favorable efficacy and safety profile in pts with gynecological cancer. It might lead to better survival benefit in treatment for gynecological cancer pts.

737 COVID-19 VACCINATION-ASSOCIATED PITFALLS ON TREATMENT RESPONSE EVALUATION WITH CT SCANS OVARIAN CANCER PATIENTS

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Introduction/Background* Some studies have highlighted the imaging finding of vaccine-associated lymphadenopathies post-Covid19 vaccines. That may have a direct impact on the diagnostic accuracy of oncologic patients. Therefore, imaging experts suggest postponing imaging explorations to 6 weeks away from vaccination. Nevertheless to postpone imaging can interfere in assessment of disease extent or clinical response of these patients. We aimed to emphasize the relevance of these findings in ovarian cancer (OC) patients.

Methodology We report three cases of asymptomatic OC patients that presented enlarged lymphadenopathies in CT scans and who have received at least one dose of mRNA Covid-19 vaccine at 6, 8 and 28days prior to the CT examination, respectively.

Result(s)* Two of them were considered as having benign vaccine-associated lymphadenopathies as they presented right supraclavicular and intrapulmonary lymphadenopathies with no other clinical findings, nevertheless a new CT scan was performed 3 months later to reassure diagnostic. The third patient, one year after being diagnosed by EOC, was diagnosed by Lymphoma. After finishing treatment, a PET/CT SCAN to response evaluation was performed, 6 days after of COVID-19 vaccination. All tumoral nodes except one hypermetabolic lymph located at the lateral side of left Iliac Artery disappeared. This lymph node was considered as either no responsive or relapsed from OC, and less likely vaccine-associated. After being resected a high grade carcinoma was found.

Conclusion* The incidence of lymphadenopathies in vaccinated patients raises a challenge in the interpretation of imaging of OC patients. Present cases emphasize the need for an accurate clinical evaluation encompassing the type and timing of Covid-19 vaccination. This would also allow avoiding imaging misinterpretations and unnecessary further assessment. Evidence-based guidelines are needed as postponing imaging controls to 6 weeks away from vaccination may be problematic in assessment of clinical response in treated OC patients or newly diagnosed patients.

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792 VESSEL INJURY AND REPAIR

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Introduction/Background* Vessel injury is a common event in retroperitoneal procedures and technique of vessel injury repair should be a part of gynecological oncology education.

Methodology Video presentation of a) a point injury to external iliac vein and technique of suture as an example of common surgical complication and way of solution b) large damage to vena cave and repair with vascular prosthesis as an example of rare and potentially catastropic complication

Result(s)* Two surgical complication – vessel injuries – were managed step-by-step with intention to reduce the blood loss and repair vessel to prevent long-term complications as a vein thrombosis.

Conclusion* Knowledge of appropriate surgical vessel repair techniques protects against long-term postoperative complications. Even dramatic vessel injury can be repaired with a sequence of steps preventing massive hemorhage and using vesseel prosthesis.

797 OCCULT CARCINOMA IN BREAST RISK REDUCTION SURGERY IN BRCA MUTATION CARRIERS

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Introduction/Background* Breast cancer is one of the most frequent tumors in the female population and can be associated with the detection of pathogenic germ-line BRCA1/2 mutation, which leads to close monitoring of patients and the consideration of prophylactic surgery. Occult synchronous breast cancer occurs in approximately 1-3% of patients and is detected incidentally.

The aim of our study is to determine the incidence of occult breast carcinoma in patients with BRCA ½ carriers who accept prophylactic mastectomy as risk reduction surgery.

Methodology Retrospective analysis of all patients assessed in the Breast Pathology Unit of the 12 de Octubre Hospital

between January 2011 and January 2021, with a diagnosis of germ-line BRCA ½ mutation and who underwent breast cancer risk-reducing surgery. The occurrence of occult carcinoma was analysed. A descriptive study of these patients was performed. All statistical analysis was performed with Stata/IC 13.0 for Windows.

Result(s)* During the study period a total of 168 patients with BRCA ½ mutation were diagnosed and breast risk-reducing surgery was performed in 81 of them (48.2%).

In 61.7% (n=50) of the cases, prophylactic surgery was performed after the diagnosis of bilateral breast cancer. Bilateral breast and in 7.4 (n=6) ovarian cancer. In 58.0% (n=47) the mutation was BRCA 1 and in 42% (n=34) BRCA 2. In 39.5% (n=32) the mastectomy performed was nipple sparing and in 60.5% (n=49) simple. Breast reconstruction was performed after surgery in 93.8% (n=76) of cases. Definitive histopathological examination showed ductal carcinoma insitu in 3.7% (n=3) of cases, and infiltrating carcinoma in 1.2% (n=1).

Conclusion* In our case series, approximately half of the patients carrying BRCA mutation have opted for breast cancer risk-reducing surgery, with a proportion of incidental carcinomas between 1-3% in the mastectomy surgical specimens. Therefore, we can conclude that in patients carrying BRCA1/2 mutation, prophylactic mastectomy is effective in reducing the risk of breast cancer.

799 BREAST CANCER IN BRCA1 AND BRCA2 MUTATIONS CARRIERS, CLINICOPATHOLOGICAL FEATURES

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Introduction/Background* Mutations in the BRCA1 or BRCA2 susceptibility genes are associated with most hereditary breast cancers with an identified pathogenic variant. These genes are implicated in about 15% of women with familial breast cancer. The aim of this study is to evaluate clinicopathological features of breast cancer diagnosed in BRCA1/2 mutations carriers.

Methodology A retrospective descriptive study of all women diagnosed with BRCA gene mutations at a high-volume center between January 2007 and October 2020 was performed. Patients' history of breast and ovarian cancer was collected. IBM SPSS Statistics® v25.0 was used for statistical analyses.

Result(s)* We included 165 patients diagnosed with BRCA1 and BRCA2 mutation, of which 91 women were diagnosed with breast cancer (58.8% among BRCA1 carriers and 51.8% among BRCA2 carriers). The mean age at diagnosis was 41.4 (SD 9.6) and 42.7 (SD 10.5) years for BRCA1 and BRCA2 respectively (p=0.54). In 32 women, risk-reducing mastectomy (RRM) was performed without previous diagnosis of breast cancer.

In 87%, the histological type was infiltrating ductal carcinoma (IDC), and the most frequent intrinsic subtypes were, for BRCA1, pure-HER2 (70%), luminal B (11%) and triple-negative (6.8%), and for BRCA 2, Luminal HER2 (39%), Luminal B (25%) and pure-HER2 (19.4%).

No differences in stage at diagnosis were found between patients with BRCA1 and BRCA2 (p=0.073) with 39.4% and 36.7% of cases of lymph node involvement respectively (p= 0.701).

Chemotherapy was used as primary treatment in 32% of patients with an anatomopathologic complete pathologic response rate in 47% of cases. The response to chemotherapy was similar in both types of germline mutation (p= 0.722).

Conclusion* To be a BRCA mutation carrier is associated with an increased risk of breast cancer at earlier ages than the general population, with no significant differences between the two types of mutation. The most frequent intrinsic subtype was different between the two groups while the stage at diagnosis was similar.

831 CORRELATION OF BREAST CANCER TUMOR SIZE BY MAGNETIC RESONANCE IMAGING, ULTRASONOGRAPHY AND MAMMOGRAPHY ACCORDING TO MENOPAUSAL STATUS

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Introduction/Background* Breast cancer (BC) tumor size (TS) at diagnosis is one of the most important prognostic factors and represent a pivotal key driver of treatment planning for patients with BC. The aim of this study was to evaluate the place of complementary breast magnetic resonance imaging (MRI) for preoperative TS evaluation in patients with early stage BC according to menopausal status.

Methodology We performed a retrospective review of a prospectively collected database of patients treated by primary surgery at a single institution for unifocal invasive BC who had complete documentation of the tumor size from mammography (MMG), ultrasonography (US), and MRI. Pearson's correlation (rs) coefficients are reported with their linear relationships.

Result(s)* A total of 752 women with 757 BC tumors were analyzed. Median age was 61.1 years (range from 26 to 89). There were 591 (78.6%) women with a postmenopausal status. Invasive ductal carcinoma (IDC) was present in 84% of tumors. The mean (SD) histopathological TS was 15.2 (8.3) mm. The tumor size varied by imaging method: 13.7 (7.3) mm for MMG, 13.1 (7.4) mm for US, and 16.4 (9.1) mm for MRI. Correlations between TS assessed by the breast imaging technique (BIT) and by histopathology were 0.80 for MRI, 0.75 for US, and 0.69 for MMG. There was an rs of 0.72 for MRI and US in premenopausal women while the rs for MMG was 0.64, in the same group of patients. The correlations between the final pathology and BIT in postmenopausal patients were 0.83 for MRI, 0.76 for US, and 0.70 for MMG.

Conclusion* Correlations between tumor size determined by BIT and final pathological size remained higher with MRI than US or MMG examination. Menopausal status may influence the accuracy of TS estimation, with a better correlation in postmenopausal women for all BIT.