

**Conclusion** With the presentation of this case, the authors intend to emphasize that even in the face of ultrasound aspects of an adnexal mass suggestive of benignity, we must always bear in mind the possibility that we are facing a borderline or malignant tumor.

### 2022-RA-1402-ESGO IMPLEMENTING HRD TESTING IN ROUTINE CLINICAL PRACTICE AMONG PATIENTS WITH PRIMARY HIGH-GRADE ADVANCED OVARIAN CANCER

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**Introduction/Background** Chemotherapy backbone for patients with high-grade advanced epithelial ovarian cancer (HG-AOC) is carboplatin and paclitaxel, followed by a maintenance therapy either with bevacizumab, a PARP inhibitor, or a combination of both which is defined by homologous recombination deficiency (HRD) and BRCA status.

**Methodology** Inclusion of patients with primary diagnosis of HG-AOC treated in a tertiary gynecologic center between 12/2019–12/2021. Offering germline testing is recommended by national guidelines and was conducted by using the True-Risk-Panel<sup>®</sup>. HRD status was measured using the Myriad myChoice<sup>®</sup> Test in patients with the indication for HRD testing.

**Results** HRD-testing was requested in 190 patients, and in 163 patients (85.8%) a HRD test result was available. HRD test result could not be reported in 27 patients due to an insufficient tumor yield. Median time to receive the HRD test results was 37 days (range, 8–97). In total HRD was present in 44.7% (73/163) based on GIS  $\geq$  42 in 42.9% and a tumor BRCA mutation in 3 case (all with GIS < 42). Germline testing results were available in 148 patients, and in 18 patients (12.2%) pathological germline mutations were detected. Of the 27 patients without sufficient HRD testing, BRCA germline testing results were available in 19 patients (70.4%), and pathological germline mutations were detected in 2 patients (7.4%).

**Conclusion** Implementation of HRD testing is feasible and results are available for treatment decisions in a timely manner for most patients. Prerequisite for HRD testing is enough tumor tissue, which should be taken at primary diagnosis of the disease as it is rather unlikely, that enough tumor tissue will be available later after chemotherapy initiation. Co-testing of HRD and BRCA-germline testing should be aimed for to enable optimal, and timely treatment decision on maintenance therapy also for patients in whom the HRD test will not be evaluative.

### 2022-RA-1405-ESGO INDOCYANINE GREEN IN NEAR-INFRARED LIGHT FOR INTRA-OPERATIVE IMAGING OF RESIDUAL OVARIAN CANCER AFTER NEOADJUVANT CHEMOTHERAPY. INITIAL EXPERIENCE

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**Introduction/Background** Interval debulking surgery (IDS) has similar outcomes and less morbidity in comparison with primary debulking in advanced ovarian cancer, however, there is controversy regarding the selection of chemotherapy-resistant clones. Complete resection (CR) is an essential prerequisite and near-infrared surgery (NIS) combined with various techniques for highlighting malignant foci is striving to achieve true CR. This study investigated the role of Indocyanine Green (ICG) for identifying residual malignant foci during IDS.

**Methodology** Patients that agreed and underwent IDS were included between 2020–2022. A bolus of ICG was administered and suspect peritoneal samples in NIR (defined by ICG hyper-/hypointensity in comparison with background ICG using Zeiss Pentero 800) were excised.

**Results** Fifteen patients were included, with a median age at diagnosis of 56 years (range 38–71). Fourteen patients (93.33%) had a high-grade serous carcinoma and most cases (73%) were FIGO stage III. All patients underwent 4 to 7 cycles of neoadjuvant platinum based chemotherapy. Forty per cent of regimens associated Bevacizumab. Six patients (40%) had a BRCA mutant variant and the median interval between neoadjuvant chemotherapy and IDS was 42 days (range 20–78 days). A total number of 39 suspect additional peritoneal samples were analyzed, with 41% confirming malignant foci. Positivity for malignant foci was confirmed on 4 out of 13 (30%) ICG hyperintense areas and 12 out of 26 (46%) ICG hypointense areas (OR 1.93, 95%CI 0.47–7.88).

**Conclusion** The use of ICG was associated with an increase in the resection of samples with residual malignant foci. Overall, hypointense ICG areas had a higher positivity rate for malignant foci in comparison with hyperintense ICG areas (46% vs. 30%), which could be interpreted in the context of dynamic changes in the tumor microvasculature or different patterns of tumor remodeling following neoadjuvant chemotherapy, that needs to be validated in larger cohorts.

### 2022-RA-1406-ESGO A REVIEW OF OVARIAN CANCER IN NORTHERN IRELAND: A RETROSPECTIVE COHORT STUDY

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**Introduction/Background** In Northern Ireland (NI) an average of 211 women are diagnosed with ovarian cancer each year with a median age at diagnosis of 65. Ovarian cancer is not a single disease but is comprised of distinct subtypes with a considerable variation in outcomes. In 2018 a funded ovarian

cancer feasibility pilot was commenced in England with the aim to extend to all four UK nations.

**Methodology** All patients diagnosed with epithelial ovarian, fallopian tube and primary peritoneal cancer in NI were included between 2014 and 2017. Patients with non-invasive epithelial (borderline) tumours were excluded. Data was collected using electronic data sources. Observed 5-year survival and time to disease recurrence was estimated by Kaplan Meier method.

**Results** 603 patients in total with two thirds of women present with advanced (stage 3/4) disease. High grade serous carcinoma (HGSC) was the most common subtype (69%). 11% were palliative and two thirds developed recurrence. Low grade serous, mucinous and endometrioid 5 year survival was 81%, 80% and 70% respectively compared to 49% for clear cell and 21% for HGSC. Specifically for HGSC 42% had cytoreduction with chemotherapy (48% complete, 35% optimum), 16% were deemed unfit for active treatment. Median time to progression was 29 months for primary surgery and 16 months for interval surgery. Median overall survival was 24 months (primary cytoreduction 58 months and interval cytoreduction 37 months).

**Conclusion** The outcomes for patients vary significantly based on the histological subtype at diagnosis. HGSC remains the most common subtype with a 5 year survival of 21%.

#### 2022-RA-1409-ESGO ATYPICAL PROLIFERATIVE CLEAR CELL TUMOR ORIGINATED IN ENDOMETRIOSIS OF THE ABDOMINAL WALL

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**Introduction/Background** Extraperitoneal endometriosis located in the abdominal wall is usually associated to a history of gynecological surgeries, with a reported incidence of malignant conversion of 0.7–1%. The most common histological types of endometriosis associated malignant transformation are endometrioid adenocarcinoma and clear cell adenocarcinoma. To our knowledge, only 30 cases of abdominal wall endometriosis with malignant transformation to clear cell adenocarcinoma have been reported. There are no published reports on borderline tumors originated from extraperitoneal endometriosis. The objective is to report a patient with abdominal wall endometriosis with malignant transformation to a borderline clear cells tumor.

**Methodology** 49 year old female with a history of a painful abdominal mass, with an abdominal-pelvic computed tomography that reported a multilobulated 6 cm mass with internal septums and mural nodules. A percutaneous biopsy of the mass reported endometriosis. She underwent laparotomy revealing a 7x5 cm solid mass which infiltrated the rectus abdominis sheath and muscle extending to the peritoneum and the anterior wall of the bladder. The final pathology

reported endometriosis with extensive atypical tubular proliferation. Immunohistochemistry stainings were consistent with a borderline clear cell tumor originating from endometriosis.

**Results** A laparoscopic hysterectomy, bilateral salpingoophorectomy and omentectomy was performed to rule out a primary ovarian neoplasia. Final pathology report was negative for malignancy. The patient has been under surveillance for 7 months without clinical findings indicative of recurrence.

**Conclusion** Extraperitoneal endometriosis located in the abdominal wall has an incidence of 0.3–3.5% and it rarely undergoes malignant transformation. Borderline tumors are noninvasive epithelial tumors with significant cellular atypia, high mitotic rate and high proliferation index but no stromal invasion. 20 to 40% of these tumors are associated to extra-ovarian implants. The non-invasive nature of these implants is an important histological landmark that defines the tumor's behaviour and the lack of adjuvant treatment.

#### 2022-RA-1412-ESGO THE ASSOCIATION BETWEEN SOCIAL DEPRIVATION IN NORTHERN IRELAND AND TREATMENT OF OVARIAN CANCER

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**Introduction/Background** The NHS England ovarian cancer audit feasibility pilot in 2018 suggested a geographical variation of treatment of ovarian cancer in England. There are areas of significant social deprivation in Northern Ireland (NI) and the aims of this project was to determine if there was any association between deprivation and treatment of ovarian cancer in NI.

**Methodology** All patients diagnosed with epithelial ovarian cancer between 2014 and 2017 were included, those with borderline tumours in the same timeframe were excluded. Data was collected electronically for all patients and their treatment types, if any. Postcodes were obtained for all patients and a Northern Ireland Statistics and Research Agency (NISRA) deprivation index was calculated and patients were ranked into deprivation quintiles (1 = least deprived, 5 = most deprived). This was correlated to the treatment that each patient received (specifically active cancer treatment vs no treatment and surgical vs non-surgical treatment) to assess if any correlation was identified.

**Results** 603 patients were identified. 101 patients in deprivation quintile-1 (83% active treatment, 75% surgery), 132 patients in deprivation quintile-2 (83% active treatment, 56% surgery), 129 patients in deprivation quintile-3 (89% active treatment, 54% surgery), 108 patients in deprivation quintile-4 (88% active treatment, 69% surgery), 133 patients in deprivation quintile-5 (91% active treatment, 64% surgery). No statistically significant correlation was found between social deprivation status and treatment modality.

**Conclusion** There is no correlation between social deprivation status and treatment of ovarian cancer in NI.