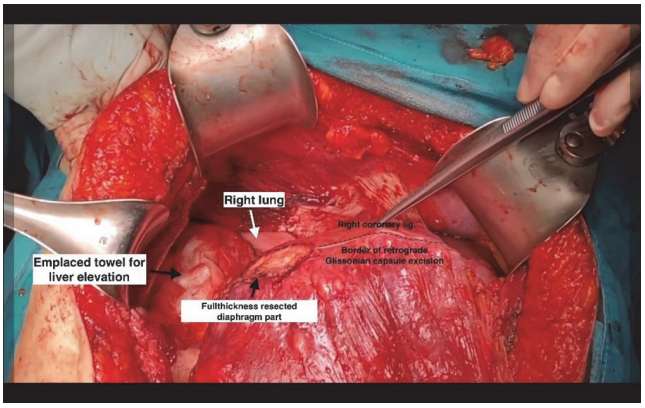
Introduction/Background We recently developed an anatomo-surgical classification for ovarian cancer (OC) metastases in the liver area consisting in 5 different types (Type-1:Glisson's, Type-2:Ligamentous,Type-3:Gallbladder,Type-4:Hepatic hilum, Type-5:Liver parenchymal).This study aims to evaluate whether this classification is able to identify patients at greater risk of intra and postoperative complications and with increased surgical complexity.

Methodology All epithelial advanced-OC patients who underwent primary or secondary surgery with perihepatic liver involvement were retrospectively retrieved.Patients were classified according to our published anatomo-surgical classification and further clustered into four major Classes:Class-I or 'Peritoneal' (including Type1,2,3), Class-II or 'Hepatoceliac lymphnodes'(Type-4), Class-III or 'Parenchymal'(Type-5) and Class IV or Mixed (≥2 classes).

Results 615 patients were identified, and Class I resulted as the most commonly represented (337 cases, 54.8%).The distribution of surgical complexity score (SCS) was superimposable among classes (p=0.239) while operative time and estimated blood loss were significantly longer/higher in Class IV (Mixed) (p<0.001). Intraoperative transfusions were more frequent in Class IV (30.4%) and less reported in Class-III (11.9%) (p=0.004); vascular injuries were significantly grouped in Class II (8%) (p=0.009).Class II and IV were more frequently associated to severe postoperative complications (p=0.008). Moreover, specific complications were found in each Class: perihepatic collection and intrahepatic hematoma/abscess in Class-III (respectively: p=0.003, p>0.001); pleuric effusion, sepsis, anemia and 'other complications' in Class IV (respectively: p=0.002, p=0.004, p=0.03, p=0.03).At Multivariate analysis SCS 3 and macroscopic residual tumor were identified as risk factors for severe postoperative complications (respectively: OR: 3.922, p=0.003 and OR: 1.748, p=0.048).Conversely, Class-I and III resulted to be at decreased risk for severe postoperative complications compared to Class IV.



Abstract 2022-RA-1456-ESGO Figure 1

Conclusion Our classification represents a useful and reliable tool, able to stratify patients with OC metastases in the liver area in Classes with different surgical outcomes and different postoperative complication profile.

2022-RA-1459-ESGO MALIGNANT STRUMA OVARII IN AN ASYMPTOMATIC NULLIPAROUS 20-YEAR-OLD PATIENT: A CASE REPORT

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10.1136/ijgc-2022-ESGO.721

Introduction/Background Adnexal pathology and adnexal tumors are common accidental findings in a regular gynecological screening visit. Ovarian teratomas are germ cell tumors that derive from the three germ layers and commonly contain teeth, hair, bone, or thyroid tissue. They consist of 20% of all ovarian tumors. Ovarian teratomas which contain at least 50% thyroid tissue are known as struma ovarii. Malignant struma ovarii are found in less than 2% of mature benign teratomas.

Methodology A 22-year-old nulliparous woman, with a history of an adnexal tumor in 2020 in her annual gynecological screening. Ultrasound (US) examination showed the presence of a cystic lesion on the left ovary with a maximal diameter of 6.5 cm and mild free fluid in the pouch of Douglas. To further assess the findings, a magnetic resonance imaging (MRI) was performed during a 12-month follow-up and confirmed a moderate adnexal cystic lesion measuring 67 mm x 82 mm x 56 mm, lying in the anatomical position of the left ovary.Tumor markers and thyroid function blood tests were within normal limits. The patient underwent a laparoscopic cystoscopy after two years of observation. The intraoperative finding was an anteverted mobile uterus with a cystic lesion in the left ovary about 8 mm x 5.5 mm x 6 mm. It was removed with an endobag. The cyst was opened, and there were serous and solid elements inside. The pathology report showed a malignant struma ovarii.

Results The patient underwent a full thyroid screening with normal findings. After detailed counseling, she decided on a twice-a-year follow-up by us and the endocrinologists. She remains asymptomatic and euthyroid.

Conclusion Malignant struma ovarii is a rare ovarian tumor, which is only diagnosed by pathology reports after surgery. There is controversy regarding its management, and it should be individualized.

2022-RA-1464-ESGO CLINICAL BEHAVIOR OF HIGH-GRADE OVARIAN CANCER (HGOC) PATIENTS WITH NON CONTRIBUTIVE GIS RESULTS (NA) BY MYRIAD

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10.1136/ijgc-2022-ESGO.722

Introduction/Background Platinum sensitivity and homologous recombinaison deficiency (HRD) are predictive biomarkers for PARP inhibitors (PARPi) benefit in HGOC patients. The only

validated assays to assess HRD are *BRCA*-mutation (BRCAmut) analysis and genomic instability scores (GIS) designed to detect genomic 'scars' in tumor DNA. However, these tests require large samples and yield non-contributive (NA) in 15% of cases. Bevacizumab and PARPi are approved as maintenance therapy regardless HRD status and the optimal maintenance strategy in case of non-contributive HRD test is a major unmet medical need. We aim to report the clinical characteristics and behavior under chemotherapy of NA HGOC pts.

Methodology This is a retrospective analysis of all pts tested for GIS by myChoice HRD Plus assay (Myriad Genetic Laboratories). Pts included presented HGOC with advanced FIGO III/IV diseases and treated according to guidelines. GIS was performed on baseline pretreatment samples, preferably. Platinum-free interval (PFI) was calculated from the date of last platinum-based chemotherapy to the date of relapse.

Results 210 patients were recruited: 100 were classified HRD negative (HRD-, score <42), 81 HRD positive (HRD+, score ≥42) and 29 NA (14%). HRD+ cohort was significantly enriched with BRCAmut pts (21/81 = 27%) compared to HRD- and NA. In the NA cohort, median age was 64 years, 86% had an high-grade serous tumor and 10% presented germinal BRCAmut. With a median follow-up of 39 months, median PFI in the overall population was 19.8 months (95% CI 16.7–24.4). In the HRD+, HRD- and NA cohorts (excluding BRCAmut), median PFI were 34.0 (95%CI 16.7–64.4), 14.6 (95%CI 12.0–20.9) and 37.3 months (95%CI 21.0-NA) respectively (P=0.004).

Conclusion Our results suggest that patients with NA GIS results behave like HRD+ tumors harboring high platinum-sensitivity and therefore may benefit from PARPi maintenance. The reason for non-contributivity in the first place is unknown and may explain these observations.

2022-RA-1470-ESGO IS NEOADJUVANT CHEMOTHERAPY EFFECTIVE AS PREHABILITATION PROGRAM IN ADVANCED EPITHELIAL OVARIAN CANCER?

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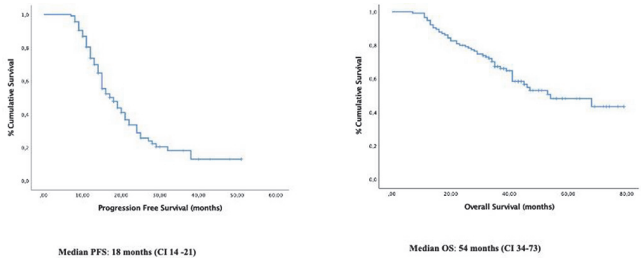
Introduction/Background A consistent number of advanced ovarian cancer (AOC) patients present with poor performance status. We sought to determine whether neo-adjuvant chemotherapy(NACT) can modify pre-operative characteristics used to identify patients at high risk(HR) of peri-operative complications, as defined by the Mayo Clinic Algorithm

Methodology In this retrospective single center observational study, FIGO stage III-IV AOC patients undergoing NACT from 01/2016 to 12/2019 were collected and triaged as low risk(LR) and HR according to Mayo Clinic Algorithm. HR group included women with at least one of the following criteria:(i) Albumin <3.5 g/dL,(ii) age ≥80 years,(iii) age 75–79 with ECOG performance status >1, stage IV disease, or complex surgery required and (iv) ASA score ≥ 3. Pre-NACT and post-NACT characteristics were compared in the HR group.

Results 177 patients were included, 144(81%) and 33(19%) were classified as HR and LR respectively before NACT. A median number of 4 cycles (range 2–6) of carboplatinum-paclitaxel NACT was administered in HR patients, with bevacizumab addiction in 53% of cases. 115 out of 144 (80%) HR women showed a significant difference in pre-NACT ECOG (p=0.007), ASA score (p=0.001), albumin level (p=0.001) compared to post-NACT setting, taking on LR features. All patients underwent interval surgery and complete cytoreduction was achieved in 97 (84%) cases. Among 42 (35%) post-operative complications, 7(16%) were classified as G3-G4. Median progression free survival was 18 months (CI 95% 14 -21), median overall survival was 54 months (CI 95% 34–73) (figure 1).



Abstract 2022-RA-1470-ESGO Figure 1 Progression-free survival and overall survival in HR patients

Conclusion NACT appeared to improve pre-treatment patient's characteristics that may account for an increase peri-operative morbidity. A comparison between the analyzed population and a statistically matched group of HR and LR patients undergoing primary debulking surgery is in due course.

2022-RA-1473-ESGO RANDOMIZED PHASE II CLIO STUDY ON OLAPARIB MONOTHERAPY VERSUS CHEMOTHERAPY IN RECURRENT OVARIAN CANCER – RESULTS OF THE LEUVEN HRD TEST

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Introduction/Background Poly(ADP-ribose)-polymerase inhibitors (PARPi) have changed the treatment landscape for high grade serous ovarian cancer. The CLIO trial (NCT02822157) evaluated olaparib (OLA) single-agent therapy versus physician's choice chemotherapy (CT) in recurrent epithelial ovarian cancer. Current available tests for homologous recombination deficiency (HRD) have been able to identify possible responders to PARPi, but improvements to these tests are necessary and validation in clinical trials is key.

Methodology With Leuven HRD test we provide an academic laboratory-developed method for HRD testing in ovarian cancer. The test was designed on DNA tumor samples of the biobank of University Hospitals Leuven and showed its predictive effect for OLA efficacy in the PAOLA-1/ENGOT-ov25 study (SGO 2022). Here we report the results of Leuven HRD test (LOH+TAI+LST) in the CLIO trial. Results will be compared to Myriad myChoiceDX on the same samples.