Introduction/Background Granulosa cell ovarian tumors (GCT) originate from sex cords and the ovarian stroma. What is characteristic of these tumors is usually low dynamics of the disease and often very late relapses. As those tumors are relatively rare, the detection and treatment might be delayed by late diagnosis.

Methodology The aim of the paper is to present a case of a woman diagnosed finally with GCT after the history of 9 laparotomies and recurrent ascites.

Results A 41-years-old patient was admitted to the University Clinical Center in Katowice due to recurrent ascites of unknown etiology. The patient presented symptoms of severe abdominal pain. She reported history of nine laparotomies, hysterectomy with adnexectomy, partial removal of the rectum and sigmoid, the creation of the colostomy, appendectomy, transverse colon resection and multiple peritoneal drainage. Some peripheric cyst and ascites were detected on imaging (CT, MRI).

Ca-125 was normal. During the hospitalization the patient was consulted with surgeons, anesthesiologists, internists, gastroenterologists and radiologists. The multidisciplinary board decided to perform laparotomy with pseudocyst and ascites removal. During the operation, pseudocyst containing tissue-like structure were removed. Due to the hepatic bleeding, abdominal packing was performed. Finally, after next two laparotomies, the hemostasis was obtained, and the abdominal wall was closed with sutures. The patient recovered well. The histopathological examination revealed GCT, FIGO stage IV. The patient was planned for chemotherapy. However, 8 weeks after discharge from the hospital, the patient’s condition deteriorated. She finally died due to multi-organ failure.

Conclusion GCTs are potentially curable neoplasms of the ovary with low treatment failure rates. Proper diagnosis on the early stage may help in introducing right treatment and help patients to recover.

Disclosures none

#580 TREATMENT OPTIONS FOR PATIENTS WITH BRAIN METASTASES FROM OVARIAN CANCER: RETROSPECTIVE MONOCENTRIC STUDY

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Introduction/Background The incidence of brain metastases (BMs) from ovarian cancer ranges at about 1% - 3%. Although brain metastasis development is very rare in ovarian cancer, it should be considered in the patient group with poor prognostic features, especially at the time of high-grade diagnosis.

Methodology We aimed to analyze patients with brain metastasis from ovarian cancer (OC), fallopian tube carcinoma (FTC), primary peritoneal carcinoma (PPC) in a single center experience and calculate overall survival (OS), disease-free (DFS) interval between diagnosis of OC and BMs.

Methods All women with OC, FTC and PPC with BMs, who were treated in Oncogynecological Department of N.N. Alexandrov National Cancer Centre of Belarus between January 1980 and December 2022 were retrospectively identified. The main criteria were serous carcinoma, endometrioid carcinoma and clear cell carcinoma and brain metastases. All data and follow-up were taken from medical records and analyzed afterward.

Interval between diagnosis of OC and BMs, interval between BMs and data of last contact were studied with the use of Kaplan-Meier curves. The statistical analyses were performed using SPSS statistical software (version 23.0). A two-sided p-value < 0.05 was considered statistically significant.

Results 106 patients with BMs met the inclusion criteria. We divided patients into 4 group: 1 - without any treatment, 2- or surgery or chemotherapy or radiotherapy, 3- combining two methods of treatment (chemotherapy with radiotherapy CR), chemotherapy with surgery (CS), surgery with radiotherapy (SR)), 4 - surgery combined with radiotherapy and chemotherapy. Median time from development of BMs to last contact date for 1st group was 0 month, for 2nd – 3 months (95% CI [1.93; 10.47]), for 3rd – 11.5 months (95% CI [11.29; 20.27]), for 4th – 28 months (95% CI [21.32; 44.68]). When comparing all medians in pairs, statistically significant differences were noted in each comparison (p< 0.05).

Conclusion The best option for patients with OC with BMs were the application of the multimodal treatment.

Disclosures The authors have nothing to disclose.

#583 SURVIVAL OF PATIENTS WITH BRAIN METASTASES FROM OVARIAN CANCER: RETROSPECTIVE MONOCENTRIC STUDY

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Introduction/Background The incidence of brain metastases (BMs) from ovarian cancer ranges at about 1% - 3%. Although brain metastasis development is very rare in ovarian cancer, it should be considered in the patient group with poor prognostic features, especially at the time of high-grade diagnosis.

Methodology We aimed to analyze patients with brain metastasis from ovarian cancer (OC), fallopian tube carcinoma (FTC), primary peritoneal carcinoma (PPC) in a single center experience and calculate overall survival (OS), disease-free (DFS) interval between diagnosis of OC and BMs.

Methods All women with OC, FTC and PPC with BMs, who were treated in Oncogynecological Department of N.N. Alexandrov National Cancer Centre of Belarus between January 1980 and December 2022 were retrospectively identified. The main criteria were serous carcinoma, endometrioid carcinoma and clear cell carcinoma and brain metastases. All data and follow-up were taken from medical records and analyzed then. DFS and OS were studied with the use of Kaplan-Meier curves. All computations were performed using SPSS Statistics (version 23.0).

Results 106 patients with BMs met the inclusion criteria. A total of 105 patients were analyzed: all patients with OC. The mean was 61.42 ± 9.94 (95% CI [59.52; 63.32]) years. A multimodal approach (surgery combined with radiotherapy and chemotherapy) used in 21% of patients with BMs. The overall five-year survival of patients with OC and BMs was 35.7%, while one-year DFS was 67.9%. Median time to development of brain metastases was 31 ± 2.4 (95% CI [17.35; 14.4]) months.
Conclusion The overall five-year survival of patients with OC with BMs was 35.7%. Median time of brain metastases development was 31 months.

Disclosures The authors have nothing to disclose.

#584 PATIENTS WITH BRAIN METASTASES FROM OVARIAN CANCER
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10.1136/ijgc-2023-ESGO.606

Introduction/Background Brain metastases (BM) from ovarian cancer (OC) are extremely rare and have a very poor prognosis. Studies on brain metastatic OC are limited by low number of participants.

Methodology We aimed to analyze patients with brain metastases from ovarian cancer (OC), fallopian tube carcinoma (FTC) and primary peritoneal carcinoma (PPC) in a single center experience.

Methods: All women with OC, FTC and PPC with BMs, who were treated in Oncogynecological Department of N.N. Alexandrov National Cancer Centre of Belarus between January 1980 and December 2022 were retrospectively identified. The main criteria were serous carcinoma, endometrioid carcinoma and clear cell carcinoma and brain metastases.

Results: At the initial analysis, 125 patients were selected, but during the initial and detailed processing, 106 patients with BMs met the inclusion criteria (the final histological diagnosis of 20 patients did not meet the inclusion criteria). A total of 106 patients were analyzed: all patients with OC. The mean age of participants was 61.42 ± 9.94 (95% CI [59.52; 63.32]). In most cases, the patients were urban residents (83%). Most often, stage III of the disease was established (58%), serous carcinoma prevailed (97%). Specific anticancer treatment was not provided at 12%.

A multimodal approach (surgery combined with radiotherapy and chemotherapy) used in 21% of patients with BMs. Surgical treatment or radiotherapy or chemotherapy were used only in 24% of patients, chemoradiotherapy was used in 34%. 18% of patients survived

Conclusion BMs from OC remain a rare event, and the overall quality of current evidence is limited, and more studies with homogeneous groups are needed to determine the best treatment actions.

Disclosures The authors have nothing to disclose.

#588 BEYOND THE BINARY: EXPLAINING THE ELUSIVE NATURE OF BLOOD TRANSFUSION THRESHOLDS IN ADVANCED OVARIAN CANCER CYTOREDUCTIVE SURGERY
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10.1136/ijgc-2023-ESGO.607

Introduction/Background Institutional transfusion protocols are not universal, and a variety of transfusion policies may exist across participating institutions. As a result, there is no well-defined threshold for intraoperative blood transfusion (BT) in advanced epithelial ovarian cancer (EOC) surgery. According to a recent ESGO consensus guidance, many patients need chemotherapy, thus more liberal transfusion thresholds may be used. We developed a Machine Learning (ML)-prediction that could trigger a BT communication alert based on the extent of surgical cytoreduction.

Methodology We analyzed prospectively collected data from 560 patients with advanced epithelial ovarian cancer (EOC) who underwent cytoreductive surgery at a UK tertiary center between 2014 and 2019. We excluded those with pre-operative anaemia and non-intact anticoagulation system, totaling 464 patients. We employed the xExtreme Gradient Boosting (XGBoost) algorithm to model pre-operative, intra-operative, and human factors. We calculated the estimated blood volume (EBV) using the formula EBV= weight x 80 and set off 10% EBV as threshold for individual intervention. Based on the known estimated blood loss (EBL) we identified two groups. Receiver operating characteristic (ROC) curves were used for performance comparison. We used The SHandley Additive exPlanations (SHAP) framework to explain the predictive model.

Results: The model performance for the above threshold prediction was satisfactory (AUC 0.723, 95% CI 0.69–0.75). The top feature commonly shared between both interrogators was operative time (OT) (figure 1). Intra-operative blood loss of at least 20%EBV was associated with OT>130 minutes, primary surgery, peritoneal carcinomatosis index >8, surgical complexity score >3, age of consultant surgeon <48 years, and ascites.

Abstract #588 Figure 1

Conclusion Based on the EBV and EBL, we identified a threshold for potential individual intervention, regardless of BT policies. Precise prediction of blood requirements is not possible unless a rough estimate of OT is known in advance.

Disclosures There are no conflict of interests.

#592 MALIGNANT TRANSFORMATION OF THE MATURE CYSTIC TERATOMA INTO OVARIAN ADENOCARCINOMA
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10.1136/ijgc-2023-ESGO.608

Introduction/Background Mature cystic teratomas are the most common type of benign ovarian tumors. However, their malignant transformation is uncommon and occurs in 1.5–2%