

largest increases in CRS over time. Patients aged ≥ 70 years had the highest probability of death in the first year after diagnosis (34.9%), but the conditional probability of death in the 2nd, 3rd, 4th, and 5th year declined abruptly to 14.7%, 9.2%, 6.0%, and 4.9%, respectively.

Conclusion The CRS rates for patients with ovarian cancer improved over time, particularly among patients with poorer initial prognoses. Our estimates can enable patients to make better informed decisions regarding follow-up care and their personal life.

Disclosures I have no conflicts of interest.

111

EVALUATION OF SURVIVAL OUTCOMES FROM DELAYED CYTOREDUCTION SURGERY FOLLOWING NEOADJUVANT CHEMOTHERAPY IN ADVANCED EPITHELIAL OVARIAN CANCER

¹Shih-Ern Yao, ²James Nicklin. ¹Queensland Centre for Gynaecological Cancer, Level 6, Ned Hanlon Building; Royal Brisbane and Women's Hospital; ²Queensland Centre for Gynaecological Cancer

10.1136/ijgc-2020-ESGO.101

Introduction/Background Optimal timing of cytoreductive surgery following neoadjuvant chemotherapy (NACT) has not been established in the treatment paradigm of advanced epithelial ovarian (EOC) cancer. Traditionally, interval cytoreduction surgery (ICS) is undertaken following 3 cycles of treatment, however in a proportion of patients, surgery is delayed for reasons including incomplete disease response, poor surgical candidacy and anticipated suboptimal tumour resectability.

We looked to investigate survival outcomes in advanced epithelial ovarian cancer (EOC) patients with the intention of maximal cytoreduction following neoadjuvant chemotherapy (NACT) with respect to timing of surgery and degree of cytoreduction.

Methodology A retrospective review was conducted of 572 patients with EOC treated with NACT with the intention of interval cytoreduction surgery (ICS) between 2008 and 2017. Overall survival (OS) and progression-free survival (PFS) outcomes were analysed and compared with patients who only received chemotherapy. Outcome measures were correlated with the number of NACT cycles and amount of residual disease following surgery.

Results There was no difference in the proportion of patients in whom complete cytoreduction was achieved based on number of cycles of NACT. Median 5-year OS and PFS for patients undergoing cytoreduction after NACT was 38 and 24 months respectively with no significant difference in OS between standard and delayed timing of surgery. Significant OS advantage was associated with patients who had undergone complete cytoreduction compared with those with any macroscopic residual disease (< 1 cm residual: HR 1.68; ≥ 1 cm residual: HR 2.77).

Conclusion From this study, survival outcomes do not appear to be worse for patients with EOC treated with NACT if cytoreduction surgery is delayed beyond three cycles. In EOC patients, the imperative to achieve complete surgical cytoreduction remains gold standard, irrespective of surgical timing, for best survival benefit.

Disclosures This work was supported by a research grant from Gynaecological Cancer Research Education and Development Society.

Neither author disclose any conflict of interest

168

PREOPERATIVE EVALUATION OF LIPID MARKERS OF MALIGNANT EPITHELIAL OVARIAN TUMORS

¹Mariia Iurova, ¹Stanislav Pavlovich, ²Natalia Starodubtseva, ²Vitaliy Chagovets, ²Grigori Khabas, ²Vladimir Frankevich. ¹Federal State Autonomous Educational Institution of Higher Education I.M. Sechenov First Moscow State Medical University of the Ministry of Health of the Russian Federation (Sechenov University); Federal State Budget Institution 'National Medical Research Center for Obstetrics, Gynecology and Perinatology Named after Academician V.I. Kulakov' Ministry of Health of Russia; ²Federal State Budget Institution 'National Medical Research Center for Obstetrics, Gynecology and Perinatology named after Academician V.I. Kulakov' Ministry of Health of Russia, Moscow, Russian Federation

10.1136/ijgc-2020-ESGO.102

Introduction/Background The venous blood is repleted with abundant tumor-promoting factors and lipids, that play an essential role in ovarian high-grade serous carcinoma (HGSC). A comprehensive picture of mediators impacting HGSC progression is, however, not available.

Research question to determine the value of the serum lipid profile in HGSC for diagnosis.

Methodology This study was approved by the Institute Research Medical Ethics Committee. Analysis of blood serum lipids of healthy volunteers (n = 13, control group) and patients with verified HGSOC (I-IV stages, n = 28, main group): I-II stages (n=5), III-IV stages (n=23)) has been performed. Patients with HGSOC managed in the Department of Innovative Oncology and Gynecology (National Medical Research Center for Obstetrics, Gynecology and Perinatology named after Academician V.I. Kulakov) were comparable in age, body mass index, grade and FIGO stages. Lipids were analysed by high performance mass spectrometry liquid chromatography (HPLC-MS). The Orthogonal Projections to Latent Structures Discriminant Analysis (OPLS-DA) multifactor analysis method and non-parametric t-test, have been applied for statistical data processing. Random forest model was used to evaluate predictive performance of potential biomarkers based on leave-one-out cross-validation in terms of area under the receiver operating characteristic (ROC). The predictive accuracy of the predictive lipids was performed using the logistic regression modeling with AUC value.

Results In main group the levels of 128 of 345 studied lipids differed significantly compared to the control group ($p \leq 0.05$), the parameters of the OPLS-DA model were: $R^2 = 0.87$, $Q^2 = 0.80$; $AUC = 0.99$. ROC curve sensitivity = 96% and specificity = 1%, the AUC value of these metabolite combinations for predicting HGOC recurrence was 1. Lipid profile changes significantly differed between the groups: control group vs I-II stages ($p \leq 0.05$), control group vs III-IV stages ($p \leq 0.05$).

11 patients who developed the disease relapse or progression had significant preoperative increase of oxidized lysophosphatidylcholine (OxLPC) and phosphatidylethanolamine (PE) in contrast to 17 patients who showed no evidence of recurrence after at least 14 months of follow up.

Conclusion Lipid profile changes in HGSC may have considerable prognostic value for the disease after treatment. The signatures defined by our work may provide a basis for the development of prognostic tools and may predict the clinical course of HGSC patients.

This work was supported by RSF grant □ 20-65-46014.

Disclosures Nothing to disclose.

197 CAN D-DIMERS AND FIBRINOGEN AID IN THE DIAGNOSIS OF OVARIAN CANCER?

¹Kate Mckendry, ²Sharon O'toole. ¹St James's Hospital; ²Department of Obstetrics and Gynaecology; Trinity College Dublin

10.1136/ijgc-2020-ESGO.103

Introduction/Background Ovarian cancer (OC) mortality rates remain high due to a lack of early predictive biomarkers. Elevated levels of fibrinogen and its end product D-dimers are found in OC compared to benign controls and can predict poor prognosis independent of venous thromboembolism. Limited studies examining fibrinogen and D-dimers separately alongside CA125 suggest they may be of use in differentiating benign from malignant disease however no clear conclusions have been drawn due to a lack of prospective trials. The aim of this study was to evaluate the performance of D-dimers and fibrinogen alongside established predictors of OC, either alone or in combination, compared to CA125 alone.

Methodology Pre-operative serum samples were collected from 296 patients undergoing primary debulking surgery for pelvic masses. Levels of CA125, D-dimers, fibrinogen, Human Epididymis Protein 4 (HE4), the Risk of Ovarian Malignancy Algorithm, and the Risk of Malignancy Index I and II were assessed and sensitivity and specificity calculated. Logistic regression models were fitted for each individual biomarker and for various biomarker combinations and an ROC comparison was performed.

Results The study consisted of 96 pre- and 200 post-menopausal women with 154 benign, 43 borderline, and 99 malignant cases. CA125, D-dimers and fibrinogen had sensitivities of 73%, 75% and 65.2% and specificities of 69.5%, 55.9% and 57.6%, respectively. The combination of HE4 and fibrinogen had the highest ROC-AUC in the premenopausal group at 75.8% but no biomarker(s) reached statistical significance compared to CA125. In the postmenopausal group, two panels (CA125 + HE4 + D-dimer + fibrinogen, and HE4 + d-dimer + fibrinogen) were significantly different to CA125 on ROC analysis (both $p = 0.029$).

Conclusion As individual biomarkers, D-dimers and fibrinogen are both limited by poor specificity using general population cut-offs. Where these biomarkers may play a role in OC is as part of biomarker panels. We developed a highly accurate multivariable model including HE4, d-dimers and fibrinogen which improved the diagnostic accuracy of CA125 alone in postmenopausal women. In pre-menopausal women, fibrinogen may play a role alongside HE4 as a second-step test, when imaging is inconclusive and CA125 is positive, to increase specificity.

Disclosures None.

228 RISK FACTORS FOR PREOPERATIVE COMPLICATIONS AND MANAGEMENT WITH ENHANCED RECOVERY AFTER PRIMARY SURGERY FOR WOMEN WITH EPITHELIAL OVARIAN CANCER IN A SINGLE CENTER OF CHINA

¹Ying Zhou, ²Chenchen Zhu, ³Zhen Shen, ³Yanhu Xie, ⁴Wei Zhang, ³Tianjiao Zhang, ³Li Min, ³Weidong Zhao, ³Dadao Wu, ⁵Björn Nashan. ¹Department of Obstetrics and Gynecology, The First Affiliated Hospital of Ustc, Division of Life Sciences and Medicine, University of Science and Technology of China; ²Department of Obstetrics and Gynecology, Anhui Provincial Hospital, Anhui Medical University; ³The First Affiliated Hospital of Ustc, Division of Life Sciences and Medicine, University of Science and Technology of China; ⁴Department of Obstetrics and Gynaecology; ⁵The First Affiliated Hospital of Ustc, Division of Life Sciences and Medicine, University of Science and Technology of China; ⁶Department of Anaesthesiology; ⁷The First Affiliated Hospital of Ustc, Division of Life Sciences and Medicine, University of Science and Technology of China; ⁸Organ Transplantation Center

10.1136/ijgc-2020-ESGO.104

Introduction/Background This study aimed to evaluate the postoperative complications and their impacts on patients who have undergone primary surgery (including extensive upper abdominal surgery) of ovarian epithelial cancer with the enhanced recovery programme.

Methodology We identified all patients with stage I–IV ovarian carcinoma who underwent primary surgery in our centre. Postoperative complications were evaluated and graded according to the Clavien–Dindo Classification.

Results Among 161 patients, 46 cases (28.57%) were performed with surgical staging, 27(16.77%) with standard cytoreduction, 12(7.45%) with en-bloc debulking, and 76(47.20%) with extraradical debulking; 157 patients (97.52%) achieved optimal tumour reduction (<1 cm). The mean postoperative hospitalisation time was 17.33 ± 11.29 days after completion of initial postoperative chemotherapy (IPC), and the interval of IPC was 16.22 ± 10.09 days. Thirteen patients (8.07%) had grade 3 complications (9 wound dehiscence, 3 digestive tract leakage, and 1 bladder fistula). Two patients (1.24%) had grade 4–5 complications (1 severe pneumonia infection and back to intensive care unit [ICU] for tracheotomy and respiration rehabilitation; 1 died of septicaemia on day 19). As for preoperative factors analysis, multivariate analysis revealed that $HE4 \geq 717$ pM ($P = 0.015$) and Federation International of Gynecology and Obstetrics (FIGO) IV stage ($P = 0.004$, compared with IIIC stage) were associated with grade 3–5 complications. Bootstrap analysis found $CA125 \geq 1012$ U/mL ($P = 0.034$), $HE4 \geq 717$ pM ($P = 0.007$), and FIGO IV stage ($P = 0.002$, compared with IIIC stage) had statistical significance. As for postoperative factors analysis, multivariate analysis did not reveal the risk factors associated with grade 3–5 complications; bootstrap analysis only found that transfer to ICU after surgery ($P = 0.026$) had statistical significance.

Conclusion Application of enhanced recovery after surgery protocols in epithelial ovarian carcinoma are useful and support the early initiation of chemotherapy and a short hospitalisation time, and it is safe for primary extensive radical cytoreduction with low mortality 1/76 (1.31%).

Disclosures This study was funded by the National Natural Science Foundation of China (81872110, 81902632), National Key R&D Program of China (2018YFC1003900), the Anhui Provincial Innovative Program for Organ Transplantation (S20183400001), and Anhui Provincial Key Research and Development Program (1704a0802151). The funders had no