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 Epidermis 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.