2022-RA-1674-ESGO SHOULD DELAYED DEBULKING/ CYTOREDUCTIVE SURGERY BE OFFERED TO ALL ADVANCED OVARIAN/FALLOPIAN TUBAL CANCER PATIENTS THAT DID NOT HAVE SURGERY?

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Introduction/Background Primary and Interval Debulking/ Cytoreductive Surgery (PDS and IDS) are standard of care for surgical management of advanced stage 3 and 4 epithelial Ovarian/Fallopian Tubal Cancer. There has been very little research regarding outcomes of Delayed Debulking Surgery (DDS); performed upon completion of adjuvant chemotherapy. Aim to evaluate survival following DDS and compare cytoreductive outcomes, post-operative morbidity, PCI scores and survival outcomes in women who underwent PDS, IDS, DDS.

Methodology Prospective data collection and retrospective review of all cases that underwent DDS in our centre from 1/7/2014 to 31/12/2020.

Results All 384 patients were divided in PDS (n=109), IDS (n=235) and DDS (n=40). Mean age of the entire cohort was 64 years old. PDS and IDS group were comparable, and DDS has significantly higher comorbidities like cardiovascular and diabetes. Overall R=0 was achieved in 70% of cases with a further 12% of residual under 0.5 cm. Ongoing mean overall survival (OS) is 56 months and the complexity of surgery did not significantly impacted morbidity (mean length of hospital stay 7 days) or survival rates. There was a significant survival benefit seen with complete cytoreduction (R0) in primary, interval and delayed debulking surgery ($p<0.05$) and OS was not statistically different in between the three groups ($p<0.05$). Age over 70 years, performance status, ASA score and residual tumour volume negatively correlated to overall survival after logistic regression. On Cox regression analysis, the hazard ratio was significantly higher for R>2 cm in all sub-groups (HR=2.7, 95% CI-1.23–6.07, $p<0.05$).

Conclusion Delayed debulking surgery is a safe and oncologically acceptable option for women who have missed the opportunity for clinical and/or personal reasons to undergo surgery in the primary or interval setting. We recommend that all cases that did not have surgery to be considered for surgery at completion of their chemotherapy by MDT.

2022-RA-1675-ESGO DEVELOPMENT OF AN INTRA-OPERATIVE DISEASE SCORE TO PREDICT COMPLETE CYTOREDUCTION IN ADVANCED-STAGE OVARIAN CANCER BY USING ARTIFICIAL INTELLIGENCE

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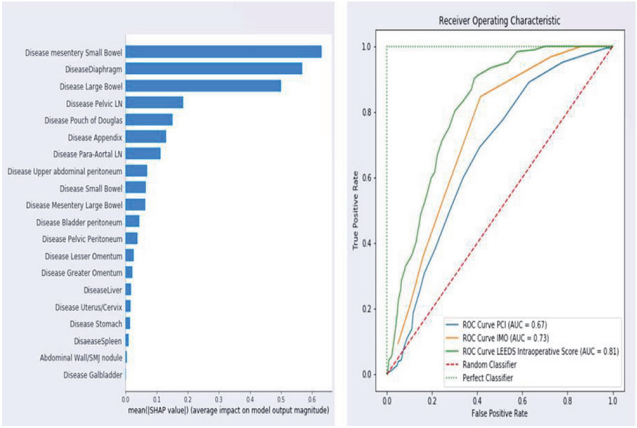
Introduction/Background The Peritoneal Carcinomatosis Index (PCI) and the Intra-operative Mapping for Ovarian cancer (IMO) to a lesser extent have been universally validated in advanced-stage epithelial ovarian cancer (EOC) to describe the extent of peritoneal dissemination and proven powerful predictors of the surgical outcome with an added sensitivity of assessment at laparotomy around 70%. This leaves room for improvement because the two-dimensional anatomic model for scoring fails to reflect the patient's real anatomy, as seen by the surgeon.

Methodology We analyzed prospectively collected data from 508 patients with FIGO stage IIIB to IVB EOC who underwent cytoreductive surgery between January 2014 and December 2019 in a UK tertiary center. We adapted the structured ESGO ovarian cancer report to provide detailed information on the patterns of tumor dissemination (cancer anatomic fingerprints). We applied the Shapley Additive Explanations (SHAP) framework to support the feature selection of the narrated cancer fingerprints. We employed the eXtreme Gradient Boost (XGBoost) to model only variables referring to the tumor disseminated patterns, to create an intra-operative score, and to judge the predictive power of the score alone for complete cytoreduction (CC0). Receiver operating characteristic (ROC) curves were then used for performance comparison between the new score, and the existing PCI and IMO tools.

Results An intra-operative disease score was created based on specific weights allocated to the cancer anatomic fingerprints (figure 1a). The score ranged from 0 to 39. The new score was not inferior to PCI and IMO for the prediction of CC0 (AUC: 0.81 vs 0.73 vs 0.67, p: NS) (figure 1b).



Abstract 2022-RA-1675-ESGO Figure 1

Conclusion The presence of cancer dissemination collectively in specific anatomical sites, including small bowel mesentery, diaphragmatic peritoneum, and large bowel may be more predictive of CC0 than the entire PCI and IMO. Early intra-operative assessment of these areas may reveal whether CC0 is achievable.

2022-RA-1678-ESGO TREATMENT PATTERNS AND OUTCOMES FOR OLDER WOMEN WITH OVARIAN CANCER IN IRELAND

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