PREDICTION MODEL FOR COMPLETE CYTOREDUCTION AT PRIMARY CYTOREDUCTIVE SURGERY FOR ADVANCED OVARIAN CANCER BY INTEGRATING OF 18F-FDG PET/CT PARAMETERS AND CA-125

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Objectives We aimed to develop a model predicting complete cytoreduction in primary cytoreductive surgery (CRS) using clinicopathologic characteristics and 18F-FDG PET/CT (PET)-derived parameters in advanced OC.

Methods We retrospectively identified patients with stage III-IV OC who underwent primary CRS between June 2013 and February 2020 at two tertiary centers for development of a prediction model and for its validation. We divided abdominal cavity into three sections in PET images. The number of lesions in each section was counted and visual grading was conducted. Then, standardized uptake value (SUV), metabolic tumor volume (MTV), and total lesion glycolysis (TLG) were estimated. We constructed various prediction models for complete cytoreduction by combination of clinicopathologic characteristics and PET-derived parameters. The model showing highest area under the receiver operating characteristic curve (AUC) was selected and its performance was evaluated for validation.

Results Prediction models were designed with the development cohort (n=159). In variable selection, MTV, TLG, and the number of lesions above the renal vein were selected among PET-derived parameters with other clinical variables including CA-125 by AUC. The highest predictive performance was achieved by combination of CA-125 (<750 or ≥750 IU/ml), the number of lesions above the renal vein (<2 or ≥2) and MTV above the renal vein with AUC of 0.768. The model predicted complete cytoreduction with AUC of 0.771 in validation (n=166).

Conclusions We successfully developed and validated PET-based prediction model for complete cytoreduction. It may be helpful for gynecologic oncologists to choose primary CRS or NACT in patients with stage III-IV OC in real-world practice.

Poster rounds with the professors: Group 05

THE IMPACT OF UTILIZATION INDOCYANINE GREEN FOR ANASTOMOTIC PERFUSION ASSESSMENT ON THE RATE OF DIVERTING ILEOSTOMY IN PATIENTS WITH ADVANCED OVARIAN CANCER

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Objectives To compare rates of diverting ileostomy in patients with epithelial ovarian cancer (EOC), undergoing surgical cytoreduction with bowel resection before and after the acquisition of surgical innovative tool for anastomotic perfusion assessment using indocyanine green (ICG-FA).

Methods A retrospective cohort study of patients with EOC undergoing bowel resection during primary or interval cytoreductive surgery, at Princess Margaret Hospital between 2010–2021. We evaluated whether utilizing the ICG-FA surgical tool, without integrating it into a systematic decision-making diversion protocol, impacted surgeons’ decision on performing diverting ileostomy.

Results Overall 181 patients met inclusion criteria. Of whom, 84 (46%) underwent ICG-FA assessment after bowel resection, and 97 (54%) had bowel resection without ICG-FA assessment. Mean age of the cohort was 58.2. There was no significant difference between groups in the rates of diverting ileostomy (40.5% in the ICG-FA group vs 41.2% in the no ICG group, p=1.0). In a univariable logistic regression, the odds of having an ileostomy were 2.92 times higher in patients undergoing primary surgery as compared to patients undergoing interval cytoreductive surgery (95% CI 1.25–6.85, p=0.013). The use of ICG-FA did not predict performing or omitting a diverting ileostomy (OR 0.97, 95% CI (0.53–1.76), p=0.92).

Conclusions In this cohort, the introduction of ICG-FA technology had no impact on the rates of diverting ileostomy. A systematic, quality-based decision-making protocol for bowel diversion that includes ICG-FA assessment is needed to prospectively assess the potential impact of this surgical innovative tool on the surgeon’s decision-making and the rates of bowel diversion in patients with EOC.

FIRST CLINICAL STUDY REPORTING ADOPTION OF ERAS IN CRS HIPEC AS PER PUBLISHED GUIDELINES: TIME TO ADOPT, EVOLVE & IMPROVE

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Objectives We report our experience of implementation of ERAS protocol in CRS and HIPEC for peritoneal carcinomatosis as per guidelines published in December 2020.