IMPACT OF PERITONECTOMY ON MORBIDITY AND MORTALITY AND ONCOLOGICAL OUTCOME DURING CYTO-REDUCTIVE SURGERY (CRS) FOR EPITHELIAL OVARIAN CANCER

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Introduction Cytoreductive surgery (CRS) provides a survival benefit when achieved without residual disease. Total parietal peritonectomy (TPP) is a surgical procedure used for complete resection of microscopic peritoneal dissemination.

Methods To assess the impact of peritonectomy on cytoreduction completeness, oncological outcomes, morbidity and mortality in epithelial ovarian cancers. The retrospective analysis of peri and post operative outcome following peritonectomy during CRS was carried out from December 2020 - May 2022 (18 months) All peri and post operative data were analysed with focus on morbidity, mortality and oncological outcomes.

Results From the 46 patients analysed, 27, 17 & 2 were primary debulking, interval debulking & secondary CRS respectively. The Median patients age was 39.5 years. Total peritoneectomy was performed in 34 patients and 12 underwent partial peritoneectomy. Of the 46 cases, pelvic peritoneectomy (31), Right diaphragm peritoneectomy (16), lesser omentectomy (38), left diaphragm peritoneectomy (8), parietal peritoneectomy (41) were performed, respectively. Total of 46 cases, 10 had bowel surgeries, 4 cases had splenectomy, 6 cases had liver deposits/capsule resection. TPP group had longer duration of surgery, higher PCI (median 19.5), higher surgical complexity score (SCS), more blood loss and increased hospital stay. TPP group had increased pulmonary complications, intra-pleural & intra-abdominal collections. There were 4 deaths within 30 days of post operative period.

Conclusion/Implications Performing TPP reduces the chance of missing the microscopic disease, therefore can minimize local recurrence, and better oncological outcomes. TPP can be performed with acceptable morbidity and mortality, at the cost of prolong duration of surgery and higher blood loss.

A TARGETED HOMOGENOUS RECOMBINATION GENE PANEL FOR EPITHELIAL OVARIAN CARCINOMAS WITH DIFFERENT HISTOLOGICAL SUBTYPES AND CLINICAL OUTCOMES

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Introduction In recent years, promising survival benefits from maintenance therapy with poly (ADP-ribose) polymerase (PARP) inhibitor (PARPi) has changed the management of epithelial ovarian cancer (EOC) in newly diagnosed and recurrent disease. Identification of BRCA and/or homologous recombination (HR) gene mutation is critical for selecting patients for PARPi treatment and as a prognostic and predictive biomarker in high-grade serous carcinoma (HGSOC), yet its role in other histology remains controversial. Our study aims to retrospectively analyze the correlation of BRCA/HR gene mutation with the clinical outcomes of EOC patients.

Methods 318 women diagnosed with EOC who had received debulking surgery and platinum-based adjuvant chemotherapy at NTUH were retrospectively reviewed. The tumor tissue was sent for genetic analysis for somatic mutation of genes in HR gene panel, including BRCA 1/2. Clinical data were obtained from medical records.

Results 25.4% of patients with HGSOC (n = 177) had BRCA/HR mutation and showed better sensitivity to platinum-based chemotherapy (83.9% vs. 69.5%, P=0.029) and longer progression-free survival (PFS) (P=0.004 and <0.001, respectively). However, only 7.8% of patients with non-serous histology had BRCA/HR mutation and showed no correlation with platinum sensitivity, PFS, or overall survival. Through the multivariate analysis, we confirmed the protective effect of BRCA/HR mutation with disease recurrence and death in patients with HGSOC yet no effect was found on non-serous histologic type.

Conclusion/Implications BRCA/HR mutation is a prognostic biomarker in HGSOC yet not in non-serous patients. Further study is needed to follow up on the clinical response to PARPi in these patients and find out other proper prognostic biomarkers.