Impact of Peritonectomy on Morbidity and Mortality and Oncological Outcome During Cyto-Reductive Surgery (CRS) for Epithelial Ovarian Cancer

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 peritonectomy was performed in 34 patients and 12 underwent partial peritonectomy. Of the 46 cases, pelvic peritonectomy (31), Right diaphragm peritonectomy (16), lesser omentectomy (38), left diaphragm peritonectomy (8), parietal peritonectomy (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.