

## Ovary: Oral Abstract

### Clinical outcomes of cytoreductive surgery and HIPEC in advanced and recurrent epithelial ovarian cancers with peritoneal carcinomatosis

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**Introduction:** The role of surgery for Peritoneal carcinomatosis (PC) has slowly evolved from palliation to potential curative intent. Attempting to remove all visible tumor deposits, "surgical cytoreduction" (CRS) was reported in 1930s for ovarian cancer and eventually became an accepted therapy with proven survival benefit. The new approach of combining CRS and Hyperthermic intraperitoneal chemotherapy (HIPEC) to treat peritoneal metastasis offer hope for long term survival in this group of patients. The risk and benefit of this approach continued to be debated. A prospective study was conducted to understand the perioperative outcomes of CRS & HIPEC.

**Aim:** To evaluate the perioperative outcomes associated with CRS & HIPEC in Advanced and Recurrent Epithelial Ovarian Cancer with PC.

**Methods:** Prospective analysis of patients undergoing CRS & HIPEC from November 2014 to July 2015 was done. Inclusion criteria included localized disease in peritoneal cavity, no distant metastasis and PS <2. Grade 3/4 complications from day of surgery until 30 days postoperatively were recorded.

**Results:** We performed CRS & HIPEC in 20 patients from Nov 2014 to June 2015. HIPEC Plus regimens included Cisplatin (50 mg/ m2) and Lipodox (15 mg/m2) intraperitoneally and Ifosphamide (1300 mg/m2) & Mesna (260 mg/m2) Infusion time was 90 minutes with a temperature range of 41-43 °C. Out of 20 patients 6 (30%) underwent primary debulking surgery and 14(70%) underwent secondary debulking surgery. PCI score ranged from 2-26 (mean 13.65). Mean operating time was 6.42 hrs and average blood loss was 1046 ml. Average hospital stay was 8 days and SICU stay was 4.9 days (range 3-14 days). Total 26 adverse events were observed of which grade 1 were 11 (42%), grade 2 were 8 (30%), grade were 3 (11.5%) and grade4 were 2 (8%). Most common complication was hematological (8) followed by respiratory (6), sepsis (4) renal (2), GI (2). 4 patients (5 events) developed grade3 or 4 complications in the form of septicaemia, pulmonary embolism, GI fistula of which 2 patients expired and remaining recovered although required prolonged hospitalization. Increased morbidity were observed in cases with symptomatic relapse, higher PCI score and CA 125 level higher than 250 U/ml. Most of the adverse events were grade 1 and 2 and were managed by observation only or GCSF support, transfusions and other minor interventions. The combined grade 3-4 morbidity was 20% (4out of 20) which consisted of neutropenia, infection and respiratory complications. One patient required relaparotomy and two patients expired attributed to pulmonary embolism and septicaemia respectively.

**Conclusion:** Enthusiasm associated with improvement in survival is often dampened by increased perioperative mortality and morbidity figures and therefore CRS & HIPEC has not yet been considered standard of care by many centres. HIPEC after extensive cytoreductive surgery for ovarian cancer is a procedure with acceptable morbidity that patients can tolerate. More follow up is needed to determine the effect of HIPEC on survival. Till such time more data are obtained by way of larger randomised trials, this approach remains investigational.

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### Neoadjuvant chemotherapy in epithelial ovarian cancer: Largest single institute experience

**Siva Kumar**

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**Purpose:** Neoadjuvant chemotherapy followed by interval debulking surgery (IDS) is an alternative treatment option, compared to the current standard of care primary debulking surgery for treating advanced epithelial ovarian cancer (EOC). We present our institute experience of neoadjuvant chemotherapy strategy in the management of EOC which is one of the largest single institute experience.

**Methods:** This is a retrospective analysis of patients with epithelial ovarian cancer who were treated in our institute between 2000 and 2006. Patient with advanced disease by clinical and imaging were treated with 3 cycles of neoadjuvant chemotherapy and then taken up for interval

debulking surgery (IDS) who had static or partial or complete response to chemotherapy. The remaining chemotherapy is delivered after the surgery. Patient who had limited disease had primary debulking surgery and then adjuvant chemotherapy according to institute protocol. Outcomes in terms of disease free and overall survival were analysed.

**Results:** This retrospective analysis included 59 patients with limited disease who had primary debulking surgery and 283 patients with advanced disease who received neoadjuvant chemotherapy. The median age was 50 years and majority are in the 50-59 years age group. Age more than 60 years represent 14.5%. Postmenopausal women were 55.3% and premenopausal women were 44.7%. Multiparity is higher 70.2% than the uniparity 16.4% or nulliparity 11.7%. Abdomen distension 42% and pain 25% are the most common symptoms. Advanced stage was the most common presentation 71% with stage III-56.1% and stage IV-14.9%. Among the neoadjuvant chemotherapy group 126/283 (44.5%) had optimal cytoreduction, 44/283 (15.5%) had suboptimal cytoreduction and 113/283 (40%) not suitable for IDS. The 5 year disease free and overall survival was 30.8% and 41.5% in the NACT group with advanced disease and 58.5% and 75.8% in the primary cytoreduction group who had limited disease respectively. The 5 years overall survival among the IDS group with optimal cytoreduction was 57.1% and 11.7% for the suboptimal cytoreduction group. The 5 years survival was not affected by the number of neoadjuvant chemotherapy cycles delivered before surgery in the IDS group. Patient who received paclitaxol + carboplatin as first line chemotherapy had better survival than carboplatin alone or cyclophosphamide + cisplatin.

**Conclusion:** NACT as an alternative option to primary debulking surgery in operable EOC is still debatable. But for patient with high disease burden where optimal cytoreduction is not possible NACT strategy is a valid option. Recent randomised controlled trials from Europe had shown the noninferiority of neoadjuvant chemotherapy followed by IDS when compared to the primary debulking surgery in operable advanced EOC.

**Key words:** Epithelial ovarian cancer; interval debulking surgery; neoadjuvant chemotherapy

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