

**PHASE II STUDY OF REGIONAL TREATMENT FOR PERITONEAL CARCINOMATOSIS**

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The objective of this study was to assess outcomes of cytoreductive surgery (CS) combined with hyperthermic intraperitoneal chemotherapy (HIPEC) and early post-operative intraperitoneal chemotherapy (EIPIC) performed at our center. Between February 2000 and January 2008, 101 consecutive patients with GI carcinomatosis were treated with the intent to perform CS + HIPEC and EIPIC. Outcomes including patient and tumor characteristics, operative details, complications, disease-free (DFS) and overall-survival (OS) were prospectively recorded. Descriptive statistics (means, medians and ranges) present patient and tumor characteristics and their outcomes. Eighty-two of 101 patients (82%), median age 49 (18-77), had a completeness of cytoreduction (CCR) score of 0 (no residual macroscopic tumor), 7 had a CCR-1 (disease < 2.5 mm) and 12 had a CCR-2 (disease > 2.5mm). Pathologic diagnoses included tumors of the appendix (55), colon/rectum (31), mesothelioma (5), primary peritoneum (4), small bowel (3), ovary (2), and stomach (1). Seventy-two (71%) patients had a PCI (peritoneal carcinoma index) of >13 at the time of surgery. Eighty-five (84%) patients received HIPEC and 84 (83%) received HIPEC and EIPIC. Median EBL was 1200 ml (0-4800) and mean RBCs transfused was 1 unit (0-17). Median operating time was 390 minutes (63-690), 44 (44%) patients required ICU care and median length of stay in hospital was 21 days (7-54). The mortality rate was 4% (4/101). Thirty-nine (39%) patients experienced a major complication (grade III, IV or V); including re-operation (12%) and anastomotic leak (5%). Group median OS is 18 months (1-86). The 3 year actual DFS and OS is 12 months (0-86) and 34 months (1-86) respectively. Median DFS and OS is 14 months (2-86) and 18 months (1-86) for appendix tumours respectively; 8.5 months (5-31) and 12.5 months (1-46) for colonic tumours respectively. Combined regional treatment holds significant promise for the treatment of peritoneal carcinomatosis.