

120 Peritoneal Carcinomatoses from Colorectal Cancer Treated with Peritonectomy and Intra-abdominal Chemohyperthermia: A S.I.T.I.L.O. Multicentric Study

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Abstract. A multicentric study has been carried out on 120 patients affected by peritoneal carcinomatosis from colorectal cancer. Patients have been treated by cytoreductive surgery and intra-operative hyperthermic chemoperfusion (HIPEC) with cisplatin (CDDP) and mitomycin-C (MMC). A small group of patients were treated with oxaliplatin (LOHP) following the Elias et al. scheme [intravenous 5-fluorouracil (400 mg/m²) and leucovorin (20 mg/m²) followed by intraperitoneal perfusion with LOHP (460 mg/m²) in 2 l/m², during 30 min at 43°C]. CC-0 cytoreduction was achieved in 85.2% of the patients. Major morbidity and mortality was 22.5% and 3.3%, respectively. No G4 toxicity was registered. The three-year survival was 25.8%. The difference in survival evaluating complete cytoreduction (CC-0) vs. incomplete (CC1-2; residual tumor nodules greater than 2.5 mm) was statistically significant ($p < 0.0001$). Evaluating only the patients that could be cytoreduced to CC-0, the 3-year survival was raised to 33.5%. In our experience the peritoneal cancer index (PCI) has been demonstrated to be a weak prognostic factor reaching a statistical significance only after the exclusion of patients with resected hepatic metastases. The patients treated with oxaliplatin were alive and free-of-disease after a 16-month median follow-up.

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The peritoneum, together with the liver, are the most likely sites of recurrence after colon carcinoma resection with curative intent, with a frequency rate of 25-35% (1). In 25% of the patients the relapses are sited on the peritoneum (2) allowing 7 months of median survival time (3). The combination of fluorouracil and leucovorin has been widely used to treat metastatic colorectal cancer with disappointing results. In the last few years new agents have been utilized to treat advanced colorectal carcinoma, achieving an objective response rate of over 50% with an overall survival rate of 15-18 months (4, 5) with up to 50% grade 3-4 toxicity.

The natural history of the patients with peritoneal recurrences have prompted new locoregional aggressive approaches, combining peritonectomy procedures and intraperitoneal chemotherapy. Exciting results have emerged from a series of phase II studies, in which the 3-year survival ranged from 22% to 65% (6-8), and a recent phase III study comparing cytoreduction associated with intra-operative hyperthermic chemoperfusion (HIPEC) vs. debulking surgery followed by systemic chemotherapy, which demonstrated a significantly better survival for the HIPEC group (9).

However, in spite of the advantage of the survival rate obtained with the integrated treatment, many questions remained unanswered regarding the selection of patients and the identification of the predictive prognostic factors. The Italian Society of Locoregional Treatment in Oncology (SITILIO) decided in 1996 to study a protocol for the treatment of peritoneal carcinomatosis by means of peritonectomy and HIPEC. The group of patients with peritoneal carcinomatosis of colorectal origin have been the object of the present report.

