

CARCINOMATOSIS IN RECTAL CANCER

- Colorectal cancer is the most common GI cancer in Western countries.
- Despite advances in early detection peritoneal carcinomatosis occurs in approx 15% of patients at initial diagnosis.
- It is a prominent finding in patients during follow-up or second-look surgery. At this point there is great diversity in treatment of peritoneal carcinomatosis.
- Palliative surgery and systemic chemotherapy is appropriate for some while others are candidates for an aggressive approach of cytoreductive surgery combined with perioperative intraperitoneal chemotherapy.

Da Silva RG, Cabanas J, Sugarbaker PH: Limited Survival in the Treatment of Carcinomatosis From Rectal Cancer

- Methods:
 - From June 81-Nov 2004 156 patients with peritoneal carcinomatosis secondary to colorectal cancer underwent cyto-reductive surgery with peri-operative intra-peritoneal chemotherapy. Among these patients 11 had rectal cancer with carcinomatosis and were the focus of this study.
 - Survival of patients with peritoneal carcinomatosis of rectal cancer origin was compared with patients with colon cancer.
- Results:
 - The mean follow-up for 11 patients with rectal cancer was 15.7 months.
 - At the end of cytoreductive surgery, cytoreduction was complete in six patients, nearly complete in two patients and there was gross disease in three patients. The median survival of the six rectal cancer patients with complete cytoreduction was 17 months and 35 months for 64 colon cancer patients with complete cytoreduction.
 - The five-year survival for patients with rectal cancer with complete cytoreduction was 0 percent and for patients with colon cancer was 33 percent.
- Conclusion:
 - Patients with peritoneal carcinomatosis secondary to rectal cancer treated by cytoreductive surgery combined with intraperitoneal chemotherapy have a poor prognosis. Some improvement in these poor results may occur if resection of a rectal cancer with carcinomatosis is delayed until definitive treatment of the primary cancer plus the carcinomatosis is possible.

Sugarbaker PH. Peritoneal surface oncology: review of a personal experience with colorectal and appendiceal malignancy

- Peritoneal surface malignancy usually results from implantation of gastrointestinal cancer. In the past, this clinical situation was treated with palliative intent. A definitive approach to peritoneal surface malignancy involves peritonectomy procedures, visceral resections, perioperative intraperitoneal chemotherapy and knowledgeable patient selection.
- Proper patient selection is mandatory for optimizing the results of treatment.
- In a series of phase II studies, appendiceal tumors with peritoneal seeding became the paradigm for success with an 85% long-term survival in selected patients.

- Carcinomatosis from colon cancer has an overall 5-yr survival of 45% with selected patients. In all malignancies, early aggressive treatment of minimal peritoneal surface dissemination showed the greatest benefit. The definitive prognostic indicator was the complete cytoreduction.
- Oncologists must seek new knowledge regarding the management of peritoneal surface dissemination of cancer because a curative approach has been demonstrated in large phase II studies; in contrast all historical controls show 0% long-term survival.

Sugarbaker PH. Strategies for the prevention and treatment of peritoneal carcinomatosis from gastrointestinal cancer.

- Background:
 - Peritoneal surface malignancy can result from full thickness invasion of gastrointestinal cancer through the bowel wall or from dissemination of cancer cells from the trauma of cancer surgery.
- Methods:
 - An aggressive approach to peritoneal surface malignancy involves peritonectomy procedures, perioperative intraperitoneal chemotherapy and knowledgeable patient selection. Proper patient selection is mandatory for optimizing the results of treatment.
- Results:
 - Carcinomatosis from colon cancer had an overall 5-year survival of 50% with selected patients. In all malignancies, early aggressive treatment of minimal peritoneal surface dissemination showed the greatest benefit.
- Conclusion:
 - Oncologists must accept responsibility for knowledgeable management of peritoneal surface dissemination of cancer because a curative approach has been demonstrated in both phase II studies and phase III studies. All historical controls show 0% long-term survival. Surgical interventions combined with perioperative intraperitoneal chemotherapy in diseases where peritoneal surface spread occurs must be considered a treatment option.

Palati P, Mocellin S, Rossi CR, et al. Cytoreductive surgery combined with hyperthermic intraperitoneal intraoperative chemotherapy for peritoneal carcinomatosis arising from colon adenocarcinoma.

- Background:
 - Hyperthermic intraoperative intraperitoneal chemotherapy (HIIC) has been recently proposed to treat peritoneal carcinomatosis arising from colon adenocarcinoma, which is usually regarded as a lethal clinical entity. The purpose of this study was to evaluate the clinical outcome of this combined treatment.
- Methods:
 - A retrospective study of 46 patients treated for peritoneal carcinomatosis from colon adenocarcinoma was performed. Thirty-four patients were treated with complete cytoreductive surgery immediately followed by intraoperative HIIC with mitomycin C and cisplatin. The clinical outcome of these 34 patients was analyzed; the median follow-up period was 14.5 months.

- Results:
 - No postoperative deaths were reported. The postoperative morbidity rate was 35%. No severe locoregional or systemic toxicity was observed. The 2-year overall survival was 31%, and the median survival time as the median time to local disease progression were 18 and 13 months respectively. Survival and local disease control in patients with well and moderately differentiated colon adenocarcinoma were significantly better than in those with poorly differentiated tumors.
- Conclusion:
 - Considering the dismal prognosis of this condition, HIIC seems to achieve encouraging results in a selected group of patients affected with resectable peritoneal carcinomatosis arising from colon adenocarcinoma. These findings support the conduction of formal phase III randomized trials.

Culliford AT, et al. Surgical debulking and intraperitoneal chemotherapy for established peritoneal metastases from colon and appendix cancer.

- Background:
 - Aggressive treatment of peritoneal metastasis from colon cancer by surgical cytoreduction and infusional intraperitoneal (IP) chemotherapy may benefit selected patients. The institutional experience was reviewed to assess patient selection, complications and outcome.
- Methods:
 - Patients having surgical debulking and IP 5-fluoro-2'-deoxyuridine (FUdR) plus leucovorin (LV) for peritoneal metastases from 1987 to 1999 were evaluated retrospectively.
- Results:
 - There were 64 patients with a mean age of 50 years. Primary tumor sites were 47 in the colon and 17 in the appendix. Peritoneal metastases were synchronous in 48 patients and metachronous in 16 patients. Patients received IP FUdR and IP leucovorin with a median cycle number of 4. The median number of complications was 1 (range 0-5), with no treatment related mortality.
 - Only six patients (9%) required termination of IP chemotherapy because of complications. The median follow-up was 17 months. The median survival was 34 months; 5-year survival was 28%.
 - Lymph node status, tumor grade, and interval to peritoneal metastasis were not statistically significant prognostic factors for survival. Complete tumor resection was significant on multivariate analysis with a 5-year survival of 54% for complete and 16% for incomplete resection
- Conclusion:
 - Surgical debulking and IP FUdR for peritoneal metastases from colon cancer can be accomplished safely and has yielded an overall 5-year survival of 28%. Complete resection is associated with improved survival (54% at 5 years) and is the most important prognostic indicator.

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