

Neoadjuvant Chemotherapy in the Management of Colorectal Metastases: A Review of the Literature

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Abstract

Introduction: Five-year survival rates of between 20% and 45% are achievable in patients following hepatectomy for liver metastases from colorectal cancer. Sadly, a great majority of patients present with unresectable liver disease with virtually no long-term survival. This paper reviews the development and role of preoperative chemotherapy in trying to downstage unresectable liver disease. Methods: The author retrieved most of the citations by performing a PubMed search for studies related to preoperative chemotherapy followed by surgical resection of liver metastases. Results: Larger series have reported resectability rates ranging from 10% to 40% for unresectable colorectal liver metastases after treatment with preoperative chemotherapy. Chemotherapy generally consisted of oxaliplatin added to 5-fluorouracil/leucovorin administered in a chronomodulated fashion. A median of about 5 to 10 months of treatment was necessary for adequate tumour reduction. The 5-year survival rates, after surgery, in completely resected patients were between 30% and 60%. The majority of these patients will relapse, of which half of these will remain confined to the liver. Patients who are able to undergo a repeat hepatectomy may achieve long-term survival rates similar to the initial resection. Preliminary data from a recent study suggest that initial treatment with an oxaliplatin-containing regimen may lead to a higher resectability rate compared to an irinotecan-containing combination (18% versus 7%). Selective intra-arterial infusion has not demonstrated a clear advantage over systemic infusion and, if administered preoperatively, it may even compromise the safety of surgery. Conclusions: Palliative chemotherapy remains the standard of care for unresectable colorectal liver metastases. However, in carefully selected patients, neoadjuvant chemotherapy may be able to downstage the disease adequately for curative resection.

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