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.


Key words: Chronomodulated, Downstaging, Hepatectomy, Oxaliplatin, Preoperative chemotherapy