

## **Treatment of Liver Metastases From Colorectal Cancer: The Need for an OncoSurge Strategy**

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Surgical resection is the gold standard treatment for metastases since it is the only one that may provide long-term survival. Optimum results from surgery are obtained in the following circumstances:  $\leq 3$  metastases, no extra-hepatic disease, unilobar, small metastases ( $< 5$  cm), and clear surgical margins ( $>1$  cm). However, none of these factors is currently an absolute contraindication to surgery, provided that the overall strategy is potentially curative. Indeed, in these cases, surgery remains the only possibility of long-term remission. In recent years, results of surgery have improved both for the diminution of perioperative mortality (now at 0–2% in specialized units) and the expected 5-year survival rate (30–40%, with some series now exceeding 50%).

However, resection is an initial option for only 10% to 20% of patients, and most patients with hepatic metastases present with unresectable disease. Systemic chemotherapy is the common treatment in these circumstances, with a recent dramatic improvement in rates of both response and survival. This improvement, related to the use of oxaliplatin and irinotecan, is presently amplified by biotherapies (cetuximab, bevacizumab). The increase in median survival with chemotherapy alone, however, still has little impact on long-term survival. Therefore, a strategy for treating initially unresectable disease is the use of neoadjuvant chemotherapy to downsize metastases and make them suitable for resection. At least 15% of unresectable patients responded to neoadjuvant chemotherapy to the extent that they could benefit from rescue surgery, with a 5-year survival rate of 35%. To further increase the resectability rate, specific techniques such as portal

embolization, cryotherapy and radiofrequency ablation combined with resection, and two-stage hepatectomies are presently available. Overall, the OncoSurge concept to combine chemotherapy and surgery is increasingly accepted as the best approach to improve prognosis in advanced metastatic colorectal cancer.

In patients who relapse following a hepatectomy, repeat resections can provide the same survival benefit, with risk of operative mortality as low as that of the first liver resection.

In summary, while the treatment of patients with colorectal cancer metastatic to the liver was merely palliative in the past, approaches are now being studied to provide long-term remission to such patients through combining optimal surgical and chemotherapeutic strategies. These strategies are becoming more aggressive and multidisciplinary, resulting in a significant gain in survival of many patients who in the past would have had a very poor outcome.