

Nationwide Outcomes of Simultaneous Resection of Primary Colorectal Cancer and Synchronous Liver Metastases

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Research

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Abstract

Background Of the few studies comparing simultaneous versus staged resection of primary colorectal cancer and synchronous liver metastases, most are limited to resections performed at the same facility. This study was performed to compare outcomes of simultaneous versus staged resection in these patients, including resections performed at a different center.

Methods The Nationwide Readmissions Database was queried for all patients undergoing colorectal cancer and metastatic liver resections in the US from 2010 to 2014. Patients undergoing simultaneous resections were compared to patients who underwent liver and colon resections on separate admissions, both liver first and colon first. The outcomes of interest were in-hospital mortality, complications, and total cost.

Results During the study period, there were 6,219 patients undergoing resection of primary colorectal cancer and synchronous liver metastases. Separate admission resection was performed at a different hospital in 45.8%. Compared to simultaneous resection, there was a reduced risk for mortality in patients undergoing colon first (OR 0.28, $p < 0.01$) and there was no significant difference in performing liver resection first (OR 0.30, $p = 0.05$). Simultaneous resection was associated with a decreased mean total cost of admissions compared to separate admission resection ($\$37,278 \pm \$34,353$ versus $\$47,985 \pm \$28,342$, $p < 0.01$).

Conclusions Nearly half of separate admission resections of primary colorectal cancer and liver metastases are performed at different hospitals and likely missed by single-center studies. Undergoing colon resection first on a separate admission is costlier, yet patients have more favorable outcomes. Further studies are needed to reveal the underlying factors responsible for these improved outcomes.

Full Text

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