



ASO Visual Abstract: Preventing Futile Liver Resection: A Risk-Based Approach to Surgical Selection in Major Hepatectomy for Colorectal Cancer

Marc W. Fromer, MD, Charles R. Scoggins, MD, MBA, Michael E. Egger, MD, MPH, Prejesh Philips, MD, Kelly M. McMasters, MD, PhD, and Robert C. G. Martin II, MD, PhD

Division of Surgical Oncology, Department of Surgery, University of Louisville School of Medicine, Louisville, KY

A futile major hepatectomy (recurrence within 6 months after the operation) can be predicted preoperatively based on the presence of extrahepatic disease, more than three liver lesions, and the need for extended hepatectomy. Such recurrences carry a poor prognosis, and improved patient

selection is needed to avoid the significant morbidity of non-therapeutic liver resection (<https://doi.org/10.1245/s10434-021-10761-0>).

Presented at Digestive Disease Week 2020-SSAT, 2 May 2020, Chicago, IL (Virtual meeting due to COVID-19)

© Society of Surgical Oncology 2021


Published Online: 4 October 2021

R. C. G. Martin II, MD, PhD
e-mail: Robert.Martin@louisville.edu

Preventing Futile Liver Resection: A Risk-Based Approach to Surgical Selection in Major Hepatectomy for Colorectal Cancer

STUDY POPULATION

259 Major Hepatectomies for metastatic colorectal cancer



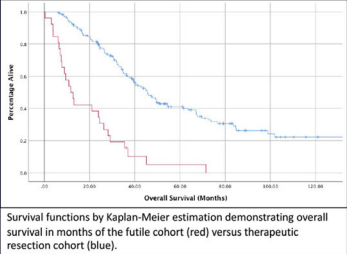
12.6% Recurred within 6-months; Defined to be "Futile Resections."

PREDICTIVE FACTORS

Multivariable Factors for Recurrence within 6 Months of Major Hepatectomy

Factor	Odds Ratio	95% CI	p-value
Extrahepatic Disease	5.6	1.8-18.1	0.004
Need for Extended Hepatectomy	2.6	1.2-6.6	0.038
Number of Liver Lesions	4.9	2.0-12.4	0.01

EFFECT ON SURVIVAL



Survival functions by Kaplan-Meier estimation demonstrating overall survival in months of the futile cohort (red) versus therapeutic resection cohort (blue).

Overall survival was 11.7 months (futile) vs. 45.6 (therapeutic) (p<0.001).

Improved risk stratification for futility will aid in patient selection and treatment discussions.

Fromer, et al. *Ann Surg Oncol*.
Visual Abstract for @AnnSurgOncol

**ANNALS OF
SURGICAL
ONCOLOGY**

DISCLOSURE There are no conflicts of interest.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.