

Combined HPB Volume Protects Hepatectomy Outcomes at Low-Volume Liver Centers



EXCEPTIONAL CARE. WITHOUT EXCEPTION.



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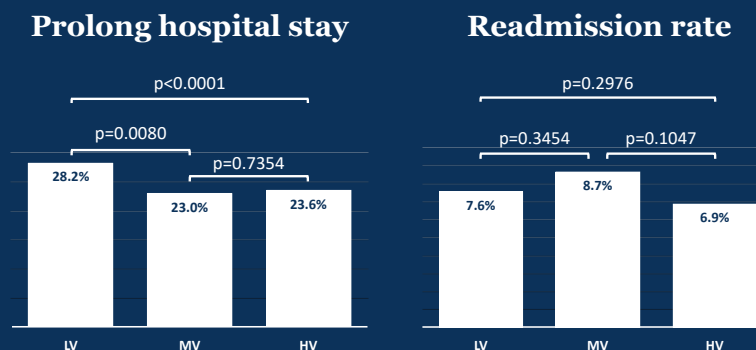
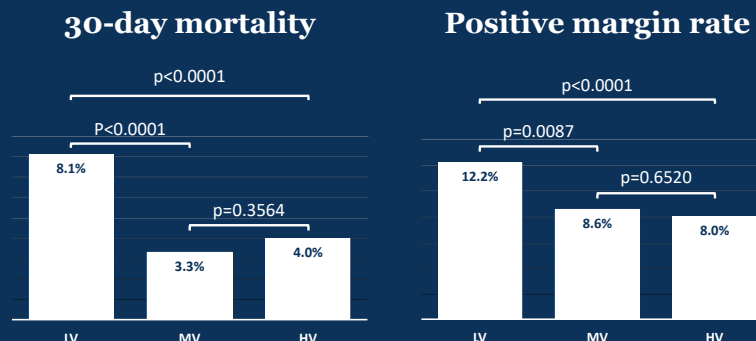
Background

The relationship between hospital volume and surgical outcomes has been well-established; however, considerable socioeconomic and geographic barriers to high-volume care continue to exist. This study assesses how the overall volume of hepato-pancreatico-biliary (HPB) cancer operations impacts outcomes of liver resection (LR).

Methods

The National Cancer Database (2004-2014) was queried for patients who underwent LR for hepatocellular carcinoma. Hospital volume was determined separately for all HPB operations and LR. Centers were dichotomized as low- and high-volume centers based on the medians. Three study cohorts were created: low-volume hospitals (LV) for both LR and HPB, mixed-volume hospital (MV) with low-volume LR but high-volume HPB, and high-volume LR hospitals (HV). Surgical outcomes were compared using multivariate logistic regression analyses.

Results



Results

Table 1. Baseline characteristics

Characteristics	LV (n=2,724)	MV (n=643)	HV (n=3,898)	p-value
Median age in years	65	65	64	<0.0001
Male gender, %	68.3%	68.0%	72.2%	0.0013
White race, %	62.3%	65.3%	62.0%	0.2023
Private insurance, %	32.8%	40.8%	40.3%	<0.0001
Academic facility, n (%)	40.9%	78.5%	81.1%	
Median travel distance in mi	9	16	21	<0.0001
Median tumor size in mm	50	53	47	<0.0001
Type of surgery, %				
Wedge resection	57.8%	54.3%	57.9%	0.0022
Lobectomy	38.4%	39.6%	36.5%	
Hepatectomy, NOS	3.8%	6.1%	5.6%	

Conclusions

Liver resection outcomes at low-volume liver resection centers that have substantial experience with HPB-cancer operations have outcomes similar to those at high-volume liver resection centers. Our results demonstrate that the volume-outcomes curve for HPB surgery may be assessed more holistically, and that patients may safely undergo liver resection at a low-volume liver resection center if HPB volume criteria are met.