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Bariatric Surgery Is Associated with Increased Mortality in Compensated and Decompensated Cirrhosis: A Population-Based Study

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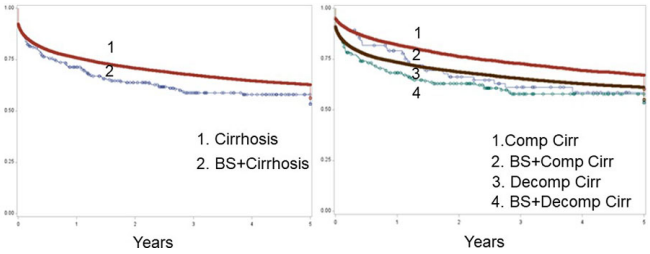
Abstract Text

Background: Bariatric surgery (BarS), an effective treatment for obesity, is increasingly seen in cirrhotics. We have recently shown that BarS is associated with increased mortality in cirrhotics awaiting liver transplantation regardless of etiology. In a population-based study, we examined the impact of BarS amongst all cirrhotics in the community.

Methods: We examined all patients with cirrhosis (compensated and decompensated) with and without Bar-S in North Texas using the DFW Hospital Council collaborative data warehouse (95% of hospitals serving 97% of Dallas-Fort Worth-Arlington Metroplex and surrounding communities in rural, urban and community settings with 84 hospitals, 17 counties, 5.5. million annual hospital visits); a unique ID tracks any patient over time accessing any of the various hospital systems. Death data is linked to the Social Security Death Index and the Death Master Index. Survival was evaluated with Kaplan Meier method and risk factors for mortality were determined by Cox PH regression analysis (MVA).

Results: Liver-related hospitalizations for patients with BarS increased from 0.16% (2006) to 1.6% (2015). 292 unique patients with BarS+cirrhosis were compared with 29,987 cirrhotics without BarS. BarS+cirrhotics were more likely to be female (73% vs. 38%), have NASH cirrhosis (16.1% vs. 3.2%) with similar prevalence of Alc cirrhosis (30.8% vs. 31.4%) and decompensation (71%). 5-year survival was lower for BarS+cirrhosis (57.9 vs. 62.8%, p<0.04).**(Figure 1)** There was a stepwise reduction in 5-year survival (p<0.01) in presence of decompensation cirrhosis: (1) Compensated cirrhosis (67%) (2) BarS+Compensated cirrhosis (61%) (3) Decompensated cirrhosis (58.6%) (4) BarS+Decompensated cirrhosis (53.5%).**(Figure 2)** Survival for BarS+Compensated cirrhosis was the same as any cirrhotic with Decompensated cirrhosis (p=0.8). BarS was not associated with a better survival in NASH vs. Alc cirrhosis. On MVA, BarS (HR 1.4, 1.2-1.7) was associated with decreased survival (<0.01) even after adjusting for age, gender, NASH and decompensation (HR 1.3, 1.2-1.4).

Conclusion: BarS, though effective treatment for obesity, decreases survival in cirrhotics in the community. Survival for compensated cirrhotics with BarS is akin to having decompensated cirrhosis. A purported survival benefit among NASH cirrhotics was not seen. The long-term impact and suitability of BarS in patients with chronic liver disease needs to be re-evaluated.



Disclosures

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