Post-exstubation Dysphagia in Liver Transplant Patients

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**Introduction**

Post-exstubation dysphagia is common in liver transplant (LT) patients who are increasingly elderly, frail and sarcopenic. Dysphagia places these patients at higher risk for aspiration, infection and reintubation. Also, dysphagia delays the introduction of a regular post-operative diet, which contributes to ongoing malnutrition and hypoalbuminemia. This study evaluates a large number of LT patients to determine the impact of dysphagia on post-LT outcomes.

**Methods**

This study is a retrospective analysis of all LT patients at a single center over a 10-year period. Study variables included any need for a speech/swallow evaluation in the pre- and posttransplant period. From 2016 to 2020, each patient was assessed for frailty using a 5m walk test and CT measures of muscle mass. This subset of patients is analyzed independently for postoperative dysphagia. Outcomes include post-transplant length of hospital stay and early and late patient survival.

**Results**

There were 1315 first time LTs during the study period. There were 125 patients (10%) who required pre-LT swallow evaluation for dysphagia, and 361 (28%) who required post-LT evaluation. The incidence of post-LT swallow dysfunction was 23%, 7% mild/moderate and 16% severe. Predictors of swallow dysfunction included older age, higher MELD score, and worse sarcopenia. There was worse 1-year patient survival with increasing severity of dysphagia (95%, 94%, 87%; p=0.04). There was also increasing length of stay (8, 17, 29 days; p<0.001). Any dysphagia was associated with a 3x longer length of hospital stay (8 vs 23 days; p<0.001). The 5m walk test did not predict dysphagia, but patients with worse sarcopenia were more likely to have any dysphagia (p=0.07). Patient with any dysphagia had lower survival at 1 year (89% versus 95%, p=0.03) and at 10 years (by Cox regression).

**Conclusion**

Liver failure patients with dysphagia pre- and post-LT have worse clinical outcomes. Patients with dysphagia must be identified to implement protective measures to avoid aspiration and optimize peri-operative nutrition. Dysphagia is an independent marker for weakness and frailty in patients with liver failure.