

Post-extubation Dysphagia in Liver Transplant Patients

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Introduction

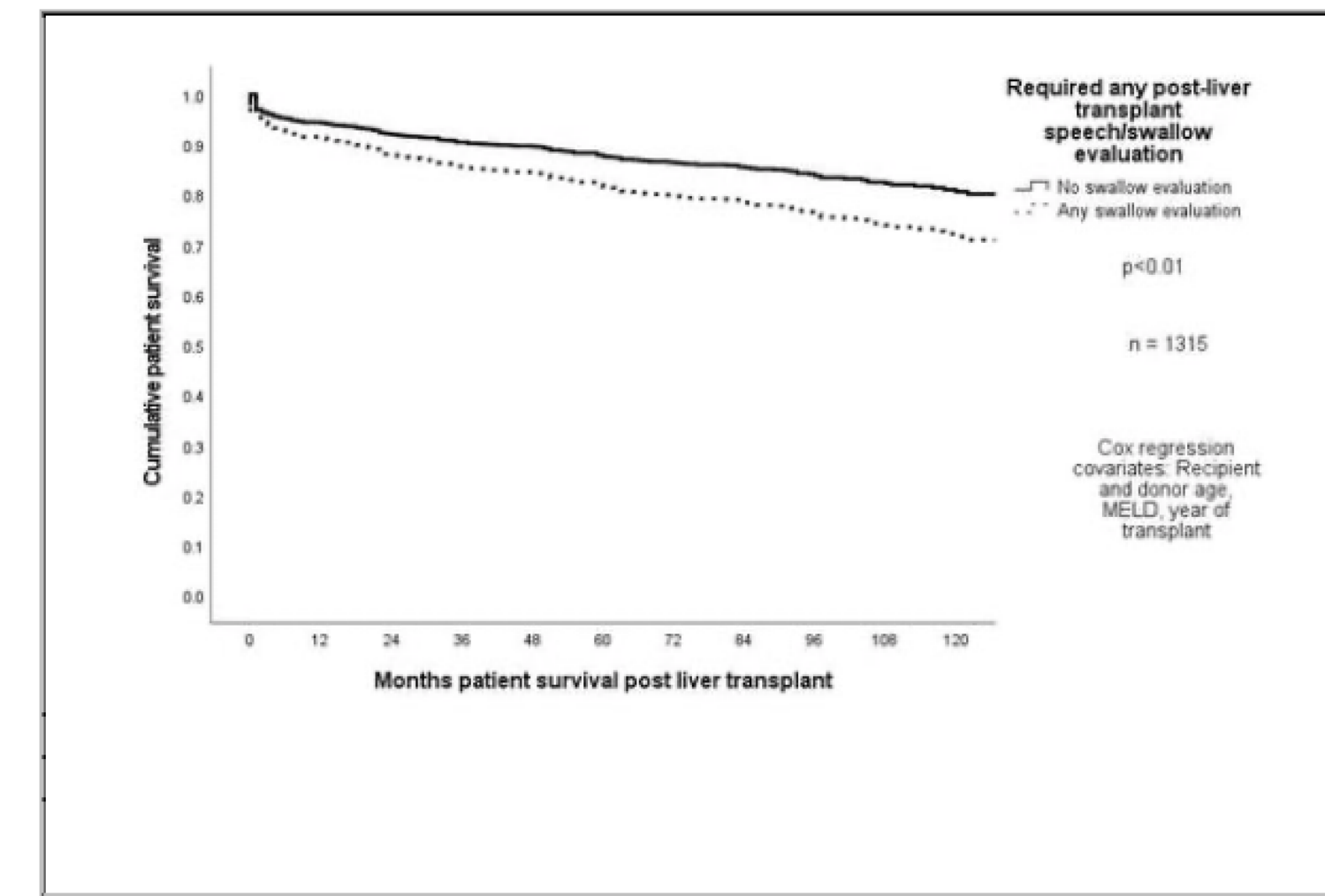
Post-extubation dysphagia is common in liver transplant (LT) patients who are increasingly elderly, frail and sarcopenic. Dysphagia places these patients at higher risk for aspiration, infection and re-intubation. Also, dysphagia delays the introduction of a regular post-operative diet, which contributes 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.