

Safety & Efficacy of Hybrid Heller's Myotomy for Achalasia

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Introduction

Achalasia is a disorder of esophageal motility characterized by failure of the lower esophageal sphincter to relax and failure of peristalsis. Heller's myotomy (HM), dividing the lower oesophageal sphincter muscles, is the standard of care. When performed laparoscopically safety is increased and morbidity decreased but esophageal injuries complicate 5–33% of myotomies. It was hypothesized that performing a hybrid endoscopic/laparoscopic procedure, with endoscopic monitoring of the myotomy, should reduce mucosal injury rates. This study aims to examine the impact of intraoperative EGD on the myotomy outcome, including the rate of perforations and symptom recurrence, based on a single-center experience.

Methods

A retrospective cohort study was conducted evaluating the outcomes of hybrid laparoscopic myotomies in 27 consecutive patients at the senior author's center from 2005-2019. Primary outcomes measured were the incidence of iatrogenic perforation and the degree of symptomatic improvement.

Results

No procedure (0%) was complicated by intraoperative perforation. Twenty-one patients reported moderately severe/severe symptoms pre-op with initial improvement to very mild/mild symptoms post-op in 76%. On long term follow-up, two patients suffered a recurrence of moderately severe/severe symptoms and one patient suffered a recurrence of moderate symptoms. Furthermore, two patients demonstrated no symptomatic improvement after the surgery.

Conclusion

This study demonstrates that intraoperative endoscopy adds to the safety of Heller's myotomy and ensures complete division of the circular muscles and the prevention of mucosal injury. As division of the circular muscles in the LES addresses only one aspect of achalasia's pathophysiology complete remission is not possible, even with surgery. The reported intraoperative perforation rate was significantly lower than that reported in the literature (0 vs. 6.9%). Only one other study reports on the results of EGD-assisted laparoscopic myotomy. Consequently, we can conclude that EGD-assisted hybrid LHM is comparable in outcome to standard LHM but results in improved patient safety.