

Robotic Heller Myotomy, Toupet Fundoplication, Hiatal Hernia Repair, Wedge Gastrectomy for Incidental GIST, and Repair of Congenital Diaphragmatic Defect: A Single-Stage Foregut Reconstruction

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Introduction:

Achalasia with concurrent hiatal hernia, GIST, and congenital diaphragmatic defects presents rare operative challenge

Robotic platforms allow precise management of separate foregut and gastric pathologies during same setup

Methods:

Male, 70s, Type II achalasia, reflux, small hiatal hernia.

Planned procedure: Robotic Heller myotomy + Toupet fundoplication + hiatal repair.

Findings: Two incidental gastric GISTs + 3 cm congenital diaphragmatic defect.

Procedures performed:

1. Myotomy,
2. fundoplication,
3. Incidental separate hiatal hernia repair
4. Wedge gastrectomy,
5. Diaphragm repair.

Approach: 4-arm robotic with liver retraction.



Figure 1. Pre- and postoperative barium swallow demonstrating symptomatic obstruction and postoperative resolution after single-stage reconstruction

Results:

Operative Time: 225 minutes

Estimated Blood Loss: 50 mL

Immediate Complications: None

LOS: Discharged POD2

Pathology: Multifocal low-grade spindle-cell GIST, margins negative

2-week Follow-up: No dysphagia, no reflux, tolerating regular diet

Discussion:

Robotics supports multi-pathology foregut intervention in a single stage.

Enhanced visualization and degrees of freedom helps manage unexpected pathology.

Minimally invasive approach reduces morbidity and LOS.

Incidental synchronous GISTs and multiple diaphragmatic defects during myotomy are rare; robotic access allowed seamless transition between foregut and gastric resection fields without repositioning

Conclusion:

Single-stage robotic intervention is feasible for complex foregut pathology.

Safe management of myotomy, fundoplication, GIST resection, and diaphragm repair.

This case highlights versatility of the robotic platform in handling unexpected findings without compromising efficiency or postoperative recovery