

# Thoracoscopic management of volvulus of the gastric conduit following minimally invasive Ivor-Lewis esophagectomy

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## Abstract

**Background** We present a case of emergent thoracoscopic management of volvulus of the gastric conduit following minimally invasive Ivor-Lewis esophagectomy. The patient is a 69-year-old Caucasian male with a history of adenocarcinoma of the lower third of the esophagus. Initial presentation was dysphagia with solid foods, which progressed in severity until he was unable to swallow anything. EUS demonstrated a partially obstructing mass at 33 cm; biopsy revealed poorly differentiated adenocarcinoma, stage T3N2Mx. PET scan did not reveal any metastatic disease. Preoperative management included neo-adjuvant chemoradiation therapy (5-FU and cisplatin) and early placement of a jejunal feeding tube. Intra-operative leak test was performed as a matter of routine

following completion of the esophagogastric anastomosis. A nasogastric tube was placed intra-operatively and removed on POD2 according to our standard pathway. Postoperatively, the patient progressed without difficulty to POD4, when we routinely obtain an upper GI swallow study. This demonstrated a lack of transit of contrast through the distal neo-esophagus. Follow-up endoscopy revealed volvulus of the gastric conduit with obliteration of the lumen.

**Method** We immediately took the patient to the OR for thoracoscopic detorsion, which we accomplished successfully by entering the existing trochar sites and using blunt dissection. Upon entering the thoracic cavity, the staple line that had been oriented anteriorly was now posterior. Attachments were gently teased away from the chest wall and the conduit was detorsed and anchored to the chest wall in the correct orientation with silk suture. Intra-operative endoscopy demonstrated a patent conduit.

**Results** Postoperative upper GI fluoroscopy now showed good transit of contrast. The patient continued to improve and was eventually advanced to mechanical soft diet and discharged on postoperative day 9.

**Conclusions** Early intervention is indicated in cases of volvulus of the gastric conduit following Ivor-Lewis esophagectomy.

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**Compliance with ethical standards**

**Disclosures** Jeremy Linson, MD, Michael Latzko, MD, Bestoun Ahmed, MD, and Ziad Awad, MD, have no conflicts of interest or financial ties to disclose.