Robotic Belsey Fundoplication

Mark Onaitis MD
Associate Professor of Surgery
University of California, San Diego
Belsey Indications/Results

- Recurrent paraesophageal hernia after multiple abdominal repairs
- First-time paraesophageal hernia with hostile abdomen
- ?paraesophageal hernia with poor motility
- Some cases of epiphrenic diverticulum or PEH with chronic thoracic adhesions
- Orringer published Belsey’s results: 84% good/excellent results with 12% 10-year recurrence rate
1. Esophagus and hiatus hernia exposed through thoracic incision

2. Fat pad excised from cardia; sutures placed in both limbs of hiatal opening

3. Three sutures placed between esophagus and gastric fundus

4. Initial row of sutures tied, creating 240° fundoplication

5. Second row of sutures placed in similar fashion and passed through diaphragm

6. Stomach passed into abdomen and second row of sutures tied

Hiatal closure
Thoracoscopic Belsey-Nguyen...Luketich 1998

- 15 patients
  - VATS Belsey in 10, myotomy with Belsey in 4, PEHR/Belsey in 1
  - 3 conversions
  - Median hospital stay 4d
  - 73% good/excellent results

Case

- 55yo man referred to UCSD MIS service with symptomatic reflux and normal motility. Endoscopy: reflux esophagitis/sliding hiatal hernia with GEJ 40cm from incisors. 24h pH positive, normal motility
  - PSH: Large midline laparotomy: transverse colectomy and partial small bowel obstruction for “SBO” 2007
  - PMH: COPD, smoking, chronic pain after MVA, bipolar disorder
  - Meds: Omeprazole, Gabapentin, Albuterol inhaler
Robotic Belsey
Summary

• Robotic Belsey is possible in appropriately selected patients
• More study is needed