

## Technique of per-oral endoscopic myotomy (POEM) of the esophagus (with video)

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Received: 3 May 2013 / Accepted: 4 September 2013 / Published online: 26 February 2014  
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### Abstract

**Background** Per-Oral Endoscopic Myotomy (POEM) is becoming an acceptable alternative to laparoscopic cardiomyotomy for esophageal motility disorders. The aim of this video is to provide key technical steps to completing this procedure.

**Method** Each patient underwent diagnostic investigations including high resolution manometry (HRM), esophageogastroduodenoscopy (EGD), and timed-barium swallow for primary esophageal motility disorders preoperatively. Patients undergoing POEM procedures are preoperatively prepared by taking Nystatin swish-and-swallow for 3 days, 24 h of clear liquid diet, and 12 h of NPO. Preoperative antibiotics are given. Under general anesthesia and with the patient in the supine position, endoscopy with CO<sub>2</sub> insufflation is prepared. Special endoscopic instruments and electrocautery settings are required to perform the POEM procedure, as illustrated in the slides. POEM is performed in six key/critical steps: (1) diagnostic endoscopy; (2)

taking measurements; (3) esophageal mucosotomy creation; (4) submucosal tunneling; (5) selective circular myotomy of the anterior lower esophageal sphincter; and (6) closure of the mucosotomy. According to our protocol, all patients get an esophogram the next morning after surgery prior to discharge. The patient receives objective testing (HRM with 24 PH Impedance test, EGD, and timed-barium swallow) 6 months postoperatively.

**Conclusion** In six key steps, POEM can be accomplished as described in the video.

**Keywords** Achalasia · General · Oesophageal · Surgical · Technical · G-I · Endoscopy

**Disclosures** Ahmed Sharata, Ashwin A. Kurian, Christy M. Dunst, Neil H. Bhayani, Kevin M. Reavis, and Lee L. Swanstrom have no conflicts of interest or financial ties to disclose.

**Electronic supplementary material** The online version of this article (doi:10.1007/s00464-013-3332-6) contains supplementary material, which is available to authorized users.

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