

Successful peroral endoscopic myotomy for radical treatment of sigmoid-type esophageal achalasia by Greek gastroenterologists

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Peroral endoscopic myotomy (POEM) is currently considered the least invasive, innovative endoscopic intervention for permanent treatment of all types of esophageal achalasia [1]. POEM, however, is a technically demanding procedure, necessitating high-quality endoscopic abilities to manage the individualized technical difficulties. Herein we report a successful POEM in a 75-year-old male with sigmoid-type achalasia performed by Greek gastroenterologists.

The patient had a 45-year history of achalasia, diagnosed by manometry, endoscopy and esophagogram, treated by repeated balloon dilatations up to 40 mmHg. He also

had a history of coronary bypass surgery and was under anticoagulants and antianginal drugs. He was referred for POEM due to severe deterioration of dysphagia despite treatment, including nitrates for his angina. Eckard score was 10 (stage III). Control esophagoscopy revealed esophageal dilatation and fluid stasis, resistance at gastroesophageal junction (GEJ) and sigmoid type I achalasia, according to Inoue *et al* [1].

Esophagogram showed esophageal dilatation >3 cm and high lower esophageal sphincter (LES) pressure. After detailed information the patient agreed and signed to undergo POEM, performed at AHEPA Hospital, Aristotle University of Thessaloniki, according to Inoue's [1] technique (Fig. 1). CO₂ insufflation was administered during procedure, while Triangle-T knife was exclusively used for submucosal tunnel creation and myotomy. Selective circular myotomy 15 cm in length, 13 cm at the esophageal and 2 cm at the gastric side, was finally completed, without serious complications.

Special problems, which prolonged POEM duration (3 h), were: a) the extremely thick circular muscle, which made myotomy difficult and time consuming; b) difficulty in orientation within the submucosal space and identification of GEJ due to sigmoid esophagus. Continuous control within the esophageal lumen and retroversion in the stomach and identification of ectopic longitudinal muscle fiber [2] in front of circular muscle when approaching GEJ were helpful to extend myotomy to the gastric side; c) severe mucosal bleeding was controlled using coagulation forceps, paying attention to coagulate the vessel and avoid mucosal perforation; d) mucosal entry closure was completed with difficulty after many attempts (25 clips) and longer fasting (to 3 days).

Esophagogram and control endoscopy the day after POEM showed intact esophageal mucosa, no leakage and open GEJ with no resistance (Fig. 1B-D). He was discharged on day 3 post-operatively. During the two-month follow up he reported almost complete relief of dysphagia.

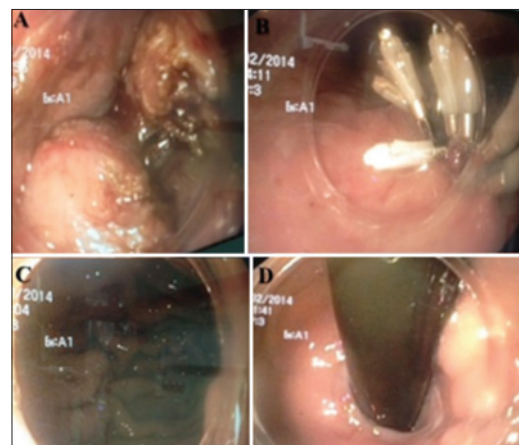


Figure 1 Endoscopic image during peroral endoscopic myotomy. (A) Thick circular muscle during myotomy. (B) Closure of the mucosal entry by clips. (C) Open gastroesophageal junction (GEJ) at forward view and (D) open GEJ at retroversion

According to this difficult and technically demanding case, we consider POEM feasible, safe and effective treatment, even for sigmoid-type esophageal achalasia, by Greek Gastroenterologists. Although it has been already proved that POEM is possible in sigmoid type achalasia, international experience in these advanced cases is still limited, and this is the first successful Greek case. Further experience and long-term results are necessary and awaited.

Acknowledgement

Prof. Dr. Haruhiro Inoue (Digestive Disease Center, Showa University Northern Yokohama Hospital, Japan) for POEM training and case consultation

References

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Conflict of Interest: None

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Received 20 April 2014; accepted 20 April 2014