Endoscopic treatment of intramural fistula and mucosal tear after peroral endoscopic myotomy

Peroral endoscopic myotomy (POEM) is a safe procedure, with few reported adverse events [1–3]. The integrity of the mucosal flap at the end of the procedure is crucial to prevent leakages and infections. We report on a rare complication after POEM.

A 72-year-old woman with type III achalasia and very severe dysphagia underwent POEM. The perioperative course was uneventful, but 2 weeks later, she presented with chest pain and dysphagia for solids.

An esophagogastroduodenoscopy showed complete dehiscence of the mucosotomy (▶ Fig. 1). Multiple openings on the mucosal flap were present, placing the real esophageal lumen in communication with a large “false lumen” of the submucosal tunnel created during POEM (▶ Fig. 2). The esophageal wall, where the myotomy had been performed, was fibrotic but intact. Computed tomography (CT) did not reveal any leakage or periesophageal collection (▶ Fig. 3).

In order to avoid food becoming lodged within the false lumen, the mucosal flap along the tunnel was cut, leaving the fibrotic esophageal wall behind the mucosa completely exposed. A triangle-tip knife with Endocut mode was used for the mucosal incision, starting from 25 cm to 37 cm from the incisors (▶ Fig. 4). The procedure was relatively easy, quick, and uncomplicated (▶ Video 1).

After the procedure, the patient experienced mild, self-limiting fever. CT scan and Gastrografin swallow showed no leakages or complications, and the patient immediately restarted oral feeding. At 1-year follow-up, the patient was in good condition, without dysphagia.

In this case, it is unknown when the dehiscence of the mucosotomy occurred, but a strong and secure fibrotic reaction prevented any leakage. Food entrapment within the false lumen and dysphagia were the main symptoms. Incision of the mucosal flap along the false esophageal lumen, a kind of fistulotomy, guaranteed a quick solution to an unusual clinical problem [4].

Endoscopy_UCTN_Code_TTT_1AO_2AN

Competing interests

Dr. G. Costamagna is a member of the advisory board of Cook Medical, Olympus Co. and Johnson & Johnson. He received a Research Grant from Boston Scientific Inc. and Apollo Endosurgery Inc.

Dr. I. Boskoski is a consultant for Apollo Endosurgery, Cook Medical and Boston Scientific. He received a Research Grant from Apollo Endosurgery. He is a member of the scientific board of EndoTools.
Video 1 Esophagogastroduodenoscopy revealed multiple tears of the mucosal flap, and a large communication between the esophagus and the submucosal tunnel. The mucosal flap was cut, to avoid food entrapment within the false lumen.