Late transmural mesh migration into the esophagus after Nissen fundoplication

A 71-year-old woman was referred to the gastroenterology department with progressive dysphagia and weight loss over 4 weeks. She had undergone a laparoscopic fundoplication with closure of the hiatal crura with mesh 5 years previously for heartburn due to gastroesophageal reflux disease and a large hiatal hernia.

Upper gastrointestinal endoscopy showed an irregularly shaped foreign body obstructing the esophageal lumen immediately proximal to the cardia (Fig. 1a). This was assumed to be a food bolus, so the object was extracted using a Roth net standard retriever. Surprisingly, the foreign body proved to be a surgical mesh (Fig. 1b).

The esophageal wall was again inspected after this endoscopic extraction. There was evidence of severe lumen tortuosity and ulcerated stenosis at the gastroesophageal junction, and the opening of a fistula was found 1 cm above the cardia on the anterior wall of the esophagus (Fig. 2). Thoracoabdominal computed tomography (CT) scanning confirmed an intra-abdominal air collection at the level of the fundoplication and a line of air to the esophagogastric fistula (Fig. 3a). A covered self-expanding metal stent (Hanaro-stent; 80×14mm) was inserted to treat both the esophageal stricture and the fistula (Fig. 3b). There were no complications during the procedure, following which the patient reported no dysphagia (grade 0).

The stent was removed 6 weeks later without complications and complete healing of the fistula was confirmed. A further CT scan showed reduction of the intra-abdominal air collection (Fig. 3c) with the patient reporting weight gain and no symptoms of dysphagia.

Closure of the hiatal crura has proven to be a fundamental issue in laparoscopic antireflux surgery [1]. Mesh reinforcement is not without complications and the incidence of these complications may be greater than previously reported [2, 3]. We describe a rare case of dysphagia caused by an esophagogastric fistula that was secondary to complete transmural esophageal migration of the surgical mesh 5 years after Nissen fundoplication and was resolved by endoscopic management.

Competing interests: None

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Fig. 1 The foreign body that was obstructing the esophageal lumen: a seen endoscopically; b following its extraction, when it was revealed to be a surgical mesh.

Fig. 2 Upper gastrointestinal endoscopy image after endoscopic extraction of the surgical material showing the opening of a fistula 1 cm above the cardia.

Fig. 3 Computed tomography (CT) images showing: a an intra-abdominal air collection at the level of the fundoplication and an esophagogastric fistula; b a covered self-expanding metal stent in position to treat both the esophageal stricture and the fistula; c a reduction in the size of the intra-abdominal air collection after removal of the stent and healing of the fistula 6 weeks later.
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