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. 1 a). 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. 1 b). 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 an esophagogastric fistula (Fig. 3 a). A covered self-expanding metal stent (Hanarostent; 80×14mm) was inserted to treat both the esophageal stricture and the fistula (Fig. 3 b). 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. 3 c) 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

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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DOI http://dx.doi.org/10.1055/s-0042-105646
Endoscopy 2016; 48: E166–E167
© Georg Thieme Verlag KG Stuttgart · New York
ISSN 0013-726X

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