LETTER TO THE EDITOR

Spontaneous intramural esophageal dissection mimicking esophageal rupture

Dear Editor

A 77-year-old woman suffered from epigastralgia, poor intake of food, and progressive confusion for 1 week. She was totally independent until falling, resulting in a right shoulder fracture, about 1 month earlier. Septic shock and acute respiratory failure were diagnosed at a local hospital and she received ventilator support. Chest computed tomography revealed suspected esophageal rupture (Figure 1A, white arrow) with paraesophageal abscess (Figure 1A, black arrow) and pneumonia. She was transferred to our hospital. Reviewing the history revealed neither vomiting, hematemesis, or expressions suggestive of chest pain or odynophagia, nor did she receive nasogastric tube or endoscope insertion earlier. Esophagogastroduodenoscopy revealed diffuse esophagitis with ulcers.

Figure 1. (A) Chest computed tomography revealed a dissection line or rupture site (white arrow) in the upper esophagus, accompanied by paraesophageal abscess (black arrow). Upper endoscopy revealed (B) diffuse esophagitis with ulcers, and sac-like lesions in the (C) upper and (D) lower esophagus.
(Figure 1B) and sac-like lesions just below the upper esophageal sphincter (Figure 1C, arrow) and 3 cm above the esophagogastric junction (Figure 1D, arrow). Spontaneous intramural esophageal dissection (IED) was suspected.

After aggressive medical treatment, her consciousness recovered and she was successfully extubated 12 days later. Nasogastric tube feeding was started. Follow-up endoscopy 4 weeks later revealed persistence of the sac-like lesions but the esophageal ulcers healed. Insertion of the pediatric scope into the upper sac revealed a false lumen, confirming it as a tear on the dissection flap. The lower sac was the orifice of a fistula into the stomach.

IED is a rare condition; the typical symptoms include chest pain, hematemesis, and dysphagia. The reported causes of IED included upper endoscopy or nasogastric tube insertion, swallowing of sharp substances, and pills stuck in the esophagus [1]. The etiology for spontaneous IED is uncertain. A careful endoscopic examination identifying the orifice of the dissection tract is important in the differential diagnosis. A recent report introduced the transabdominal ultrasound finding of a false lumen in IED as an elongated air column inside the submucosal layer of the gastric and esophageal wall [2]. In severe cases like this patient, IED can mimic esophageal rupture, which carries an ~40% mortality rate and may need immediate surgical intervention [3]. If esophageal perforation cannot be excluded by chest computed tomography and esophagogastroduodenoscopy, video-assisted thoracoscopy can be a diagnostic exploration [4]. Conservative treatment is usually enough for uncomplicated IED; the lesions can heal within 2–4 weeks [1]. If a patient heals slowly and suffers from persistent dysphagia, an esophageal stent or endoscopic incision of the septum between the false and true lumens can be considered [1,5].

References