

Endoscopic resection of an esophageal duplication cyst with spraying of anhydrous alcohol

A 56-year-old man presented with progressive dysphagia for 12 months, but reported no weight loss and no significant medical history. Gastroscopy revealed a bulge with normal overlying mucosa in the lower esophagus (● Fig. 1). Endoscopic ultrasound (EUS) showed a 5-cm hypoechoic intraluminal cystic mass with clear margins originating from the muscularis propria (● Fig. 2). A well-defined cystic mass without internal enhancement was observed on computed tomography (CT) (● Fig. 3).

Endoscopic submucosal dissection (ESD) of the esophageal lesion was performed (● Video 1). The lesion was raised by submucosal injection of 100 mL glycerol fructose (10%) mixed with 1 mL of indigo carmine. After an incision had been made on the cyst wall with a dual-knife (KD-650L; Olympus, Tokyo, Japan), the yellowish fluid of the cyst drained gradually and completely into the esophageal lumen. The lesion was completely and uneventfully resected using the dual-knife and a hook-knife. Good visualization of the cavity of the cystic lesion was subsequently obtained, and anhydrous alcohol was sprayed into the cavity using a spray tube. There were no complications such as bleeding or perforation.

A diagnosis of an esophageal duplication cyst was made by histopathological examination of the resected specimen. A repeat endoscopy was performed 7 days later, and anhydrous alcohol was sprayed once again (● Fig. 4). The patient reported a rapid recovery and denied dysphagia during a follow-up period of 12 months. Esophageal duplication cysts are rare congenital anomalies of the foregut and the majority of patients are asymptomatic [1]. Surgical resection is generally required for cysts that cause symptoms such as dysphagia, epigastric pain, and retrosternal pain [2]. Endoscopic treatment of esophageal duplication cysts has increased in recent years because of its

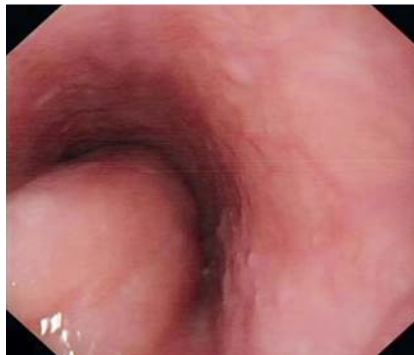


Fig. 1 Endoscopic image showing a bulge in the lower esophageal wall with normal overlying mucosa that was later shown to be an esophageal duplication cyst.

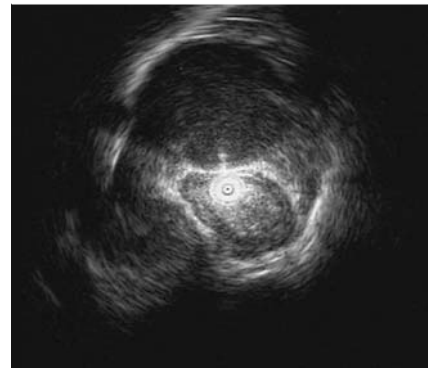


Fig. 2 Endoscopic ultrasound (EUS) view of the lesion showing a 5-cm hypoechoic cystic mass with clear margins originating from the muscularis propria.

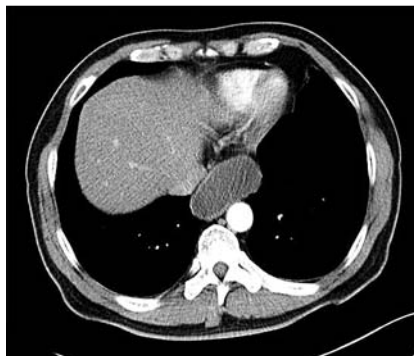


Fig. 3 Computed tomography (CT) scan image showing a cystic mass without internal enhancement in the lower esophagus.

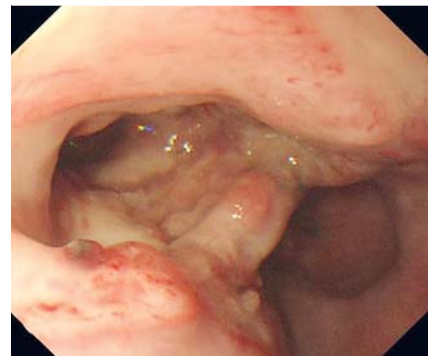


Fig. 4 Appearance at follow-up endoscopy 7 days after endoscopic submucosal dissection (ESD) of an esophageal duplication cyst and spraying of anhydrous alcohol.

minimal invasiveness [3,4]. In this case, after performing ESD, we sprayed anhydrous alcohol, which is usually used for treating liver or ovarian cysts. Because anhydrous alcohol can destroy the epithelial cell layer of the cyst wall, the recurrence rate of cysts may, theoretically, be lower. Further studies on the long-term efficacy and safety of this treatment are required.

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Competing interests: None

Video 1



Endoscopic submucosal dissection (ESD) of the esophageal lesion.

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