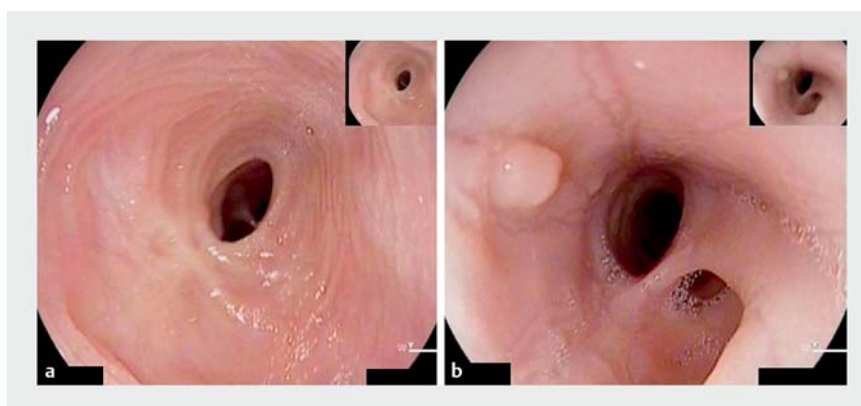


Endoscopic management of eosinophilic esophagitis presenting as a double lumen esophagus

A 19-year-old man was referred to our unit with a 5-year history of dysphagia and food impaction. Upper endoscopy revealed a concentric stricture in the proximal esophagus, which underwent subsequent balloon dilation to 15 mm. Strikingly, a well-established mucosal septum was identified below the stricture, forming a double-lumen esophagus (DLE) that partially obstructed the esophagus (► **Fig. 1**). Biopsies from the mid and distal esophagus revealed inflammation, and high dose proton pump inhibitors were started.

The patient continued to experience dysphagia and intervention was therefore planned (► **Video 1**). A gastroscope (GIF-HQ290; Olympus, Tokyo, Japan) was introduced under general anesthetic. The proximal stricture was balloon dilated to 15 mm. Indigo carmine dye was injected into the proximal end of the duplicate lumen to check patency as the dye flowed distally onto the main lumen. An SB-knife (Sumitomo Bakelite Co. Ltd., Tokyo, Japan) was used to divide the septum (ERBE VIO 200D, Endocut I, Effect 1, Duration 3, Interval 3; Erbe Elektromedizin GmbH, Tübingen, Germany). The septectomy was performed from the proximal to the distal orifice without complications (► **Fig. 2**). The patient's symptoms drastically improved after the procedure. Further biopsies were taken and confirmed eosinophilic esophagitis (EoE), and a 6-week course of fluticasone oral slurry was started. After 2 years of follow-up, he remains asymptomatic with no further interventions required (► **Fig. 3**).

EoE is a chronic immune condition presenting with symptoms of dysphagia or food impaction. Stricture development is the main indication for endoscopic treatment [1]. The DLE is a rare endoscopic finding, previously reported as a complication to nasogastric tube insertion [2] or associated with other uncom-



► **Fig. 1** Baseline endoscopy findings. **a** Concentric stricture in the proximal esophagus, with ringed appearance of the esophagus. **b** Upper orifice of the double esophagus formed by a thick mucosal septum. See the typical linear furrows present in the eosinophilic esophagitis.



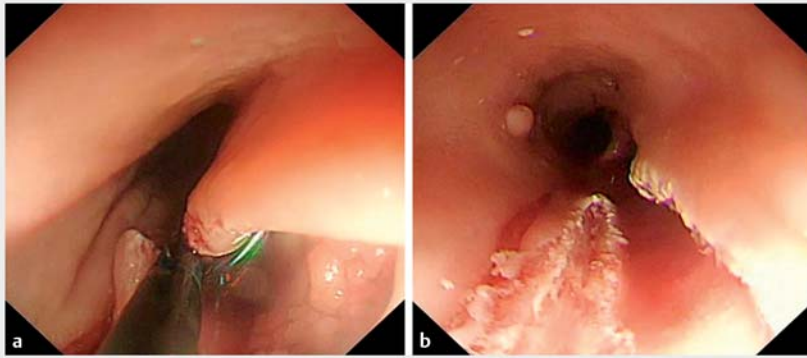
► **Video 1** Endoscopic treatment with septectomy for a double lumen esophagus as an unprecedented presentation of eosinophilic esophagitis.

mon conditions (i.e. esophagitis dissecans superficialis) [3]. To our knowledge, this is the first report of an EoE and DLE association and its successful management by endoscopic septectomy and balloon dilation.

Endoscopy_UCTN_Code_CCL_1AB_2AC_3AH

Competing interests

Krish Ragunath is a consultant for Olympus and has received research and educational grants from Olympus and Pentax. He received educational grant from ERBE.



► **Fig. 2** Septectomy. **a** An antegrade septectomy was performed starting at the proximal end. An SB-knife (Sumitomo Bakelite Co. Ltd., Tokyo, Japan) was chosen to carry out the procedure. **b** Final appearances of the esophagus.



► **Fig. 3** Follow-up endoscopy 4 weeks after showing complete resolution of the septum.

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