Endoscopic management of Killian-Jamieson diverticulum

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An 83-year-old man was reviewed because of long-standing intermittent solid food dysphagia. A previous EGD in 2012 performed for the same issue was unremarkable apart from a nonobstructing Schatzki ring. An upper-GI series, in 2018, showed a 4-cm by 2-cm outpouching at the level of the upper-esophageal sphincter. The radiographic interpretation was a Zenker diverticulum (Fig. 1A). He was referred for consideration of endoscopic cricopharyngeal myotomy.

An upper endoscopy was performed with the patient under general anesthesia. The outpouching was located in the cervical esophagus below the cricopharygeus (Fig. 1B). The location was lower than a standard Zenker diverticulum; the location was considered to be more consistent with a Killian-Jamieson diverticulum. A decision was made to proceed with endoscopic treatment (Video 1, available online at www.VideoGIE.org).

The septum was divided with the standard needle-knife with precision dissection by use of an endoscopic submucosal dissection hook-knife (Fig. 2A, B). After intervention, the endoscope passed through without resistance.

After the procedure, the patient experienced subcutaneous emphysema and rhinolalia. Intravenous antibiotics were

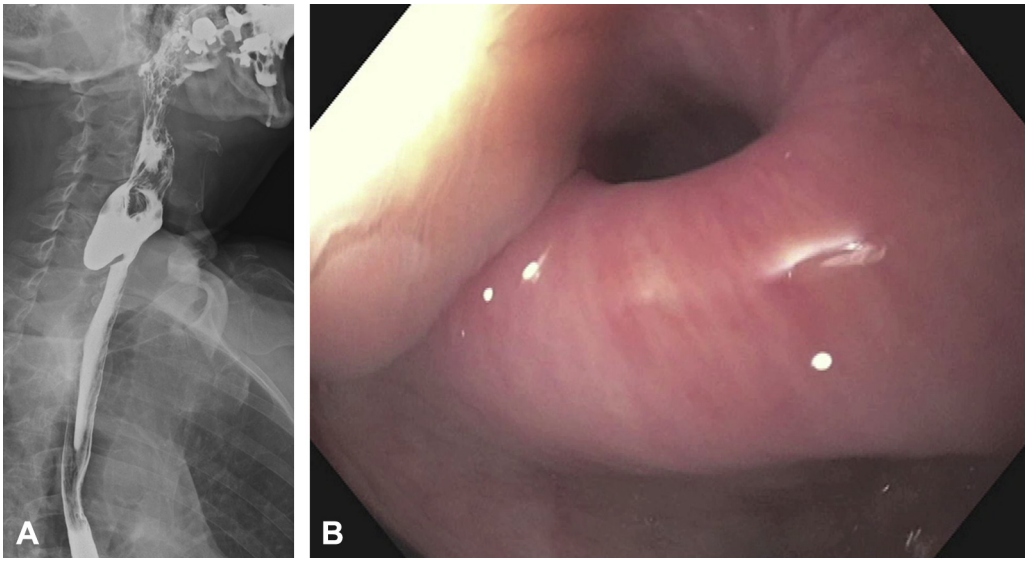

Figure 1. A, Preprocedural lateral image from upper-GI series. **B,** Preprocedural endoscopic image.

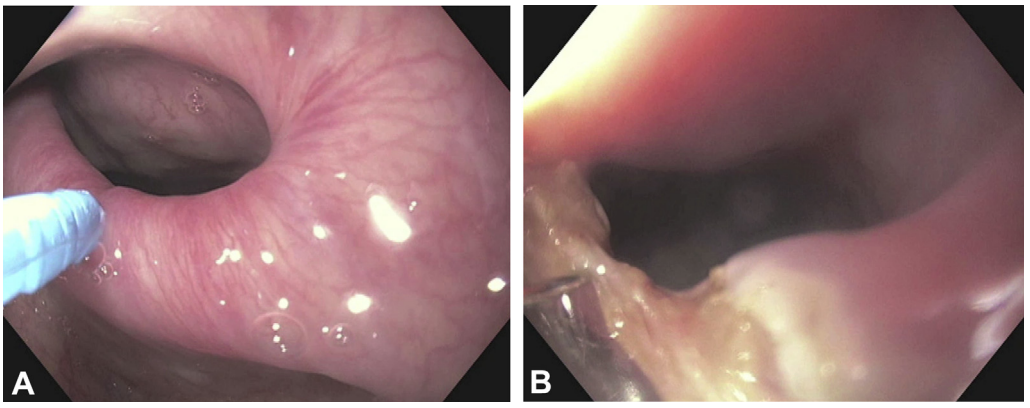

Figure 2. A, Needle-knife dissection. **B,** Endoscopic submucosal hook-knife dissection.

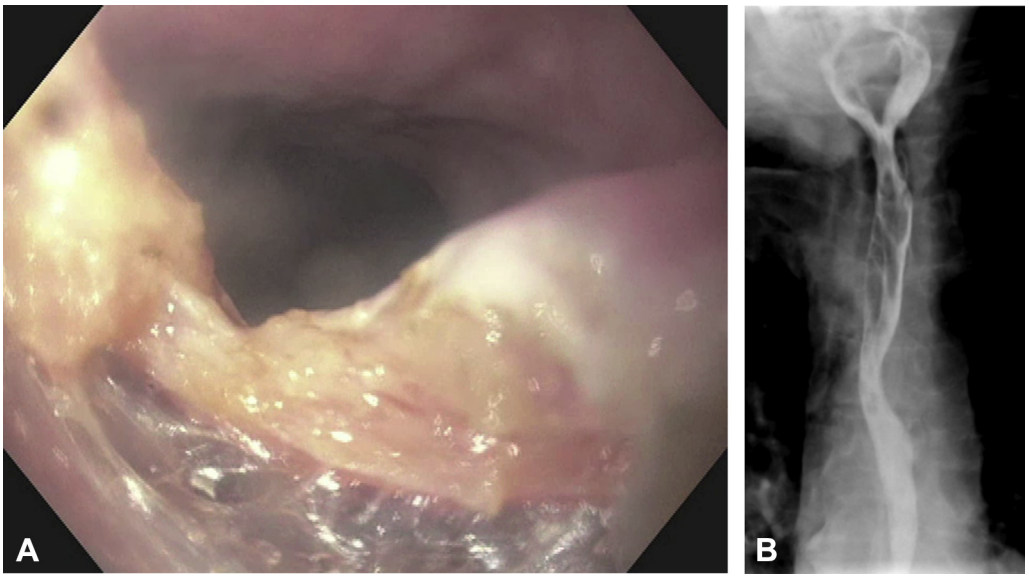

Figure 3. A, Postprocedural endoscopic image. **B,** Postprocedural anteroposterior image from a gastrografin swallow.

administered, and the patient was kept fasting. A CT scan confirmed the presence of a small pneumomediastinum, but no leak. A day-3 postprocedure gastrografin swallow also did not demonstrate a leak (Fig. 3B). His diet was advanced, and he was discharged home tolerating a soft diet. Since the procedure the patient has done well, with no further dysphagia and resolution of the rhinolalia.

A Zenker diverticulum is an outpouching arising above the cricopharyngeal bar at upper endoscopy, and its sac lies posterior to the cervical esophagus on lateral images and in the midline on anteroposterior images. By contrast, a Killian-Jamieson diverticulum is an outpouching arising from the anterolateral wall of the cervical esophagus inferior to the cricopharyngeus at upper endoscopy, and its sac lies off midline on anteroposterior images. The adverse events of an esophageal diverticulum include obstruction, perforation, ulceration, bleeding, and fistula.[1,2] Standard management for a symptomatic Killian-Jamieson diverticulum is surgery, but endoscopic management adopting the same technique as for a Zenker diverticulotomy may be considered.[3] Submucosal tunneling endoscopic septum division could also be considered, with the advantage of maintaining mucosal integrity. For operative candidates, surgery by a transcervical approach is favored because of the concern for recurrent laryngeal nerve injury.[4]

DISCLOSURE

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