

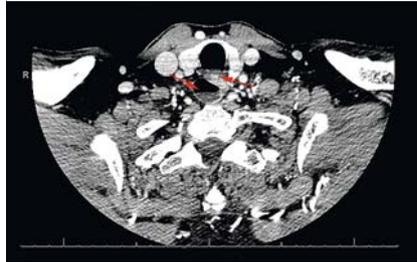
## Elusive case of dysphagia: Zenker's diverticulum masquerading as a cervical neoplasm

A 73-year-old man with previous skin cancer presented with a year long history of dysphagia and regurgitation. When evaluating the dysphagia 5 months earlier, esophagogastroduodenoscopy (EGD) was generally unremarkable, only revealing a possible short-segmented Barrett's esophagus, with no esophageal lesion noted. Magnetic resonance imaging (MRI) of the cervical spine (during follow-up from neck surgery) described a prevertebral soft tissue mass lesion measuring 2.2×1.7 cm. The patient was then referred to a tertiary cancer center for a suspected cervical neoplasm.

Computed tomography (CT) of the neck revealed a dilated proximal esophagus with a possible intramural esophageal mass (► Fig. 1). The patient was referred for endoscopic ultrasound (EUS) and possible EUS-guided fine-needle aspiration for tissue diagnosis and staging.

EGD revealed a Zenker's diverticulum with a large opening and impacted food in the upper esophagus below the upper esophageal sphincter, with a prominent cricopharyngeus muscle (► Fig. 2). There was no evidence of an esophageal mass (► Fig. 3 a); however, with the aid of water immersion, two distinct lumens were visualized in the upper esophagus (► Fig. 3 b). The collapsed esophageal lumen next to the Zenker's diverticulum was possibly misdiagnosed as an intramural mass on the previous CT.

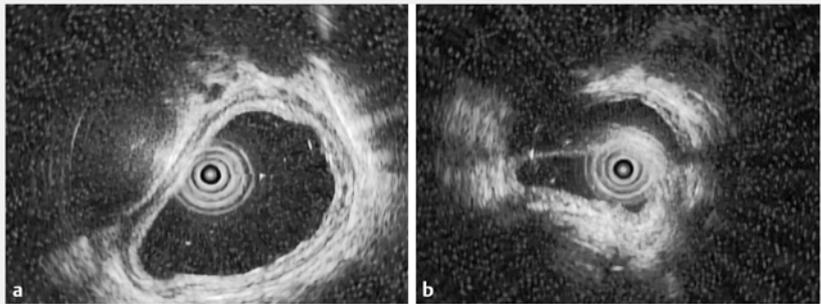
CT and MRI imaging are not considered relevant diagnostic methods [1] for Zenker's diverticulum, as there is a high possibility of interpreting the Zenker's diverticulum as a mass. In the current case, previous clinicians had mistakenly identified the collapsed esophageal lumen as an intramural esophageal mass. Therefore, we would like to emphasize the need for careful endoscopic evaluation of the esophagus all the way to the esophageal inlet for patients presenting with dysphagia, and for radiologists to consider this diagnosis while evaluating



► Fig. 1 Computed tomography scan initially revealed a cervical esophageal dilation and an intramural mass in the left anterior esophageal wall (arrows).



► Fig. 2 Esophagogastroduodenoscopy revealed Zenker's diverticulum in the upper esophagus.



► Fig. 3 Endoscopic ultrasound imaging. a There was no evidence of an intramural mass in the surrounding esophageal wall. b Two distinct lumens were seen in the upper esophagus.



► Video 1 Esophagogastroduodenoscopy and endoscopic ultrasound assessment of Zenker's diverticulum, which was initially interpreted as an intramural cervical mass on computed tomography.

the CT/MRI scans of the neck. Moreover, we would like to raise awareness of the potential to miss the diagnosis of Zenker's diverticulum during an EGD and the potential for misdiagnosing Zenker's diverticulum as an esophageal mass, as the appearance of a large Zenker's diverticulum on CT or MRI imaging is similar to a mass.

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### Competing interests

None

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