A 72-YEAR-OLD WOMAN complained of a recent soft mass on the left side of her neck. She described a 2-cm mass just medial to the lower portion of the left sternocleidomastoid muscle, but the results of the physical examination were unremarkable. With a 7- to 8-MHz curvilinear array transducer, an ultrasound examination was performed in the office setting that showed a 1.5-cm hypoechoic lesion, posterior to the left lobe of the thyroid gland and anterolateral to the esophagus. The ultrasound showed a lesion containing a central hyperechoic area associated with a comet-tail artifact (Figure 1).

What Is the Diagnosis?
A. Abscess of the thyroid gland
B. Infected branchial cyst
C. Zenker diverticulum
D. Lymphadenitis

Figure 1.
Answer

Zenker Diverticulum

Figure 1. Transverse view of cervical ultrasound showing a comet-tail artifact. T indicates thyroid gland; CA, carotid artery.

The pharyngoesophageal or Zenker diverticulum is the most common diverticulum of the esophagus and is typically located posteriorly on the left side of the neck. It is a pulsion or false diverticulum resulting from incoordination of cricopharyngeal function. Patients frequently present with dysphasia, a gurgling sound when swallowing liquids, or regurgitation of food. A large diverticulum may be diagnosed by a plain neck x-ray film showing an air-fluid level, but more frequently the diagnosis is made by a barium swallow study. The use of ultrasound for making this diagnosis has been reported in patients with symptomatic large diverticula.1,2 Treatment usually requires cervical esophagomyotomy and diverticulectomy.

In our patient, the lesion was easily identified on ultrasound, as multiple hyperechoic spots were noted when the patient swallowed. The movement of the hyperechoic spots was consistent with the air moving back into the esophagus, which made the diagnosis of Zenker diverticulum. The diagnosis was confirmed by a subsequent barium swallow study (Figure 2).

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REFERENCES


Submissions

The Editor welcomes contributions to the “Image of the Month.” Send manuscripts to Grace S. Rozycki, MD, Department of Surgery, Emory University School of Medicine, 69 Butler St SE, Atlanta, GA 30303; (404) 616-3553; fax (404) 616-7333 (e-mail: grozycki@emory.edu). Articles and photographs accepted will bear the contributor’s name. Manuscript criteria and information are per the “Instructions for Authors” for Archives of Surgery. No abstract is needed, and the manuscript should be no more than 3 typewritten pages. There should be a brief introduction, 1 multiple-choice question with 4 possible answers, and the main text. No more than 2 photographs should be submitted. There is no charge for reproduction and printing of color illustrations.

Figure 2. Lateral view of barium swallow showing the Zenker diverticulum.