Radiology Quiz Case 1

SECTION EDITOR: PATRICIA A. HUDGINS, MD

Radiology Quiz Case 1

Andrew R. Scott, MD; Eric H. Holbrook, MD; Massachusetts Eye and Ear Infirmary, Boston

A 71-YEAR-OLD WOMAN WAS REFERRED TO our institution for evaluation of a rapidly enlarging neck mass along with dysphagia, drooling, and dyspnea. She reported that painless neck swelling had developed over the preceding month, followed by dramatic enlargement of a left-sided mass in the previous week. Before her transfer, a computed tomographic scan had been performed. The referring physician did not feel that the patient's airway could be secured before transport.

On presentation, the patient was in mild distress and unable to tolerate her secretions. Physical examination showed marked kyphosis and a large, firm, left-sided cervical mass that was causing right lateral neck flexion. Only secretions could be seen on flexible laryngoscopy. Vocal fold mobility could not be assessed because the mass obliterated the oropharynx, leaving no identifiable landmarks. An axial, contrast-enhanced computed tomographic scan of the neck and chest from the outside hospital was reviewed (**Figure**). Soft-tissue windows demonstrated axial cuts through the chest, with the patient's kyphotic posture positioning her head and neck in the coronal plane. A 10×7-cm heterogeneous mass was easily identified. Areas of hypodensity within the lesion were consistent with central necrosis and possible old hemorrhage. The mass extended from the level of the aortic arch inferiorly to the oropharynx superiorly and appeared to be centered in the left thyroid lobe. There was severe narrowing of the upper airway at the level of the inferior oropharynx.

Because the airway appeared especially tenuous, the patient's code status was addressed before any intervention was initiated. The decision was made to proceed with awake nasal fiberoptic intubation in the operating room, with a possible awake tracheotomy through gross tumor. Intubation with a 5.5 endotracheal tube over a pediatric bronchoscope was successful. Once the airway was secured, a transcervical core needle biopsy specimen was obtained.

What is your diagnosis?

Figure.