

## Ectopic Thyroid: An Unusual Cause of Anterior Mediastinal Mass

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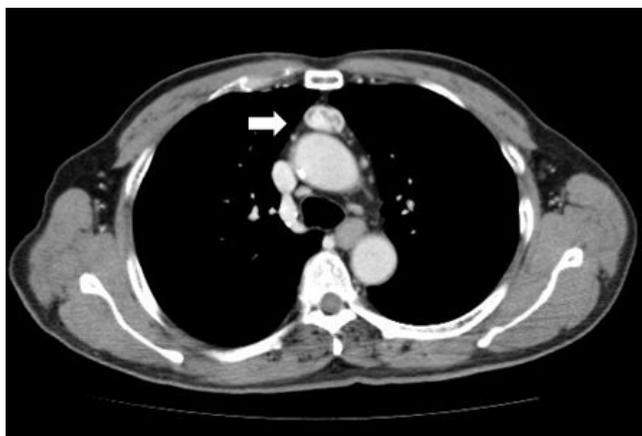
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### Description

A 67-year old man presented with dysphagia for several weeks. Endoscopy was performed for suspected esophageal lesion, and an upper esophageal cancer was found and proved by biopsy. A contrast enhanced computed tomography (CT) was performed for cancer staging. Post-contrast CT demonstrated concentric esophageal wall thickening which was compatible with the presence of esophageal cancer. Post-contrast CT also revealed an avidly and heterogeneously enhancing nodule in anterior mediastinum (arrows in Figures 1 and 2). This nodule demonstrated high attenuation on pre-contrast CT (arrow in Figure 3). The rest of the CT exam showed no remarkable findings.



**Figure 1:** Post-contrast axial CT showed an avidly and heterogeneously enhancing nodule in anterior mediastinum.

Due to the possibility of this anterior mediastinal nodule being an anterior mediastinal tumor or atypical metastatic lymphadenopathy, surgical biopsy of the anterior mediastinal nodule was performed as well as esophagectomy. Esophageal cancer was confirmed by histopathologic findings. However, the surgical biopsy of the anterior mediastinal nodule revealed an ectopic thyroid with colloid follicles unexpectedly.

Ectopic thyroid is a rare developmental abnormality secondary to aberrant embryogenesis of the thyroid gland. It is most commonly found in the lingual area, and mediastinal location is rare.



**Figure 2:** The same anterior mediastinal nodule on post-contrast coronal CT.



**Figure 3:** The anterior mediastinal nodule demonstrated high attenuation on pre-contrast axial CT.

Mediastinal nodule or mass with high density on non-contrast images relative to adjacent muscle; and intense contrast enhancement

should prompt the diagnosis of ectopic thyroid. The pre-contrast high density is due to the intrinsic iodine content in the ectopic thyroid. Differentiating ectopic thyroid from other entities is important as this may affect the clinical management. Ectopic thyroid may or may not cause symptoms, depending on the size and location of the lesion. Scintigraphy, sonography and magnetic resonance imaging are other tools that can be used for the diagnosis of ectopic thyroid. Currently

there is no consensus about the optimal management of ectopic thyroid; options ranging from surgery to regular image follow up. Although rare, the small risk of malignant transformation of ectopic thyroid should be kept in mind.