

SOFT-TISSUE CASE 28. DIAGNOSIS

ECTOPIC THYROID

A solid homogeneous midline lesion with avid contrast enhancement was seen at the base of the tongue at the foramen cecum (Fig. 1, left) coursing inferiorly, anterior to the hyoid and extending to the anterior notch of the thyroid cartilage. No cystic elements were visualized. No thyroid tissue was identified in its expected location (Fig. 1, right) and no abscess or inflammation was seen. The patient was lost to further follow-up.

The thyroid anlage originates between the first and second branchial arches. With further embryonic development, the anlage grows caudally, resting anterior to the developing trachea by the 7th embryonic week. Gradual atrophy and resorption of the thyroglossal duct is created by this descent.¹

Ectopic thyroid tissue may occur at any point along the thyroglossal duct, with the tongue being the most com-

mon site (90% of all ectopias).² Partially descended thyroid tissue, as seen in this patient, is a much less common finding. The principal differential consideration for a midline anterosuperior neck mass is a thyroglossal duct cyst. In the CT scan presented in the question (page 251), this much more common entity can be excluded because of the lack of a cystic component and the homogeneous enhancement.

When thyroid ectopia is suspected, the examination of choice is iodine-123 scanning with a delay of at least 4 to 6 weeks between administration of iodinated intravenous contrast and the scanning procedure.³ Although most thyroid tissue will be visualized on CT, the ¹²³I study is most sensitive to any ectopic functioning thyroid tissue and will show if a normally located thyroid gland is also present. This is of the utmost importance because the removal of an ectopic thyroid gland in a patient without a co-existent normal gland would result in

a lifelong dependence on thyroid hormone replacement.

Clinical management of these patients depends on the severity of their symptoms. Whereas the majority of patients are asymptomatic and require no intervention, resection is sometimes necessary. Autotransplantation may be considered in patients without a normally situated thyroid who require surgical removal.

References

1. Batsakis JG, El-Naggar AK, Luna MA. Thyroid gland ectopias. *Ann Otol Rhinol Laryngol* 1996;105(12):996-1000.
2. Som PM, Curtin HD. *Head and neck imaging*. St. Louis: Mosby; 1996. p. 573-4.
3. Gottschalk A, Hoffer PB, Potchen EJ. *Diagnostic nuclear medicine*. 2nd ed. Baltimore: Williams & Wilkins; 1988. p. 757-61.

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FIG. 1