



EUTHYROID SUPRAHYOID (LINGUAL) ECTOPIC THYROID PRESENTING AS A MIDLINE NECK SWELLING IN AN 8-YEAR-OLD GIRL: A CASE REPORT

Paediatric Surgery

Dr. Rohith Yadav G

Assistant Professor, Department of General Surgery, SABVMCRI, Bengaluru, India

Dr. Sandhya N

Associate Professor, Department of Surgery, KIMS, Hubli, India

Dr. Rajashankar

Professor and Head, Department of Paediatric Surgery, KIMS, Hubli, India

ABSTRACT

Introduction: Ectopic thyroid is an uncommon developmental anomaly caused by abnormal migration of the thyroid primordium. Lingual thyroid, located at or near the base of the tongue, is the most frequent form of thyroid ectopia and may remain clinically silent until childhood or puberty. Recognition is important because the ectopic tissue may represent the patient's only functioning thyroid tissue. **Case Presentation:** An 8-year-old girl presented with a 6-month history of a slowly noticed swelling in the upper midline of the neck. Examination revealed a well-defined, ovoid, approximately 2×3 cm, firm, smooth, non-tender midline suprahyoid swelling located about 2 cm from the inferior border of the symphysis menti. The swelling moved with deglutition. Ultrasonography demonstrated absence of the thyroid gland in its normal pretracheal location and an echogenic soft-tissue lesion at the junction of the posterior one-third and anterior two-thirds of the tongue, measuring approximately 1.4×1.0 cm, with movement on deglutition. Technetium-99m pertechnetate thyroid scintigraphy demonstrated no tracer uptake in the thyroid bed and focal uptake in the midline upper neck/base-of-tongue region, consistent with ectopic lingual thyroid. Thyroid function tests were reported as normal. In the absence of documented compressive or obstructive symptoms, the patient was reassured and managed conservatively. **Conclusion:** A midline suprahyoid swelling that moves with deglutition should prompt consideration of ectopic thyroid tissue, even when thyroid function is normal. Demonstration of absent orthotopic thyroid tissue and confirmation of functioning ectopic tissue by radionuclide scintigraphy are critical before any biopsy or excision is contemplated. In an asymptomatic euthyroid child, observation with long-term clinical and thyroid-function surveillance is a reasonable approach.

KEYWORDS

Ectopic Thyroid; Lingual Thyroid; Thyroid Dysgenesis; Pediatric Neck Swelling; Thyroid Scintigraphy; Case Report

INTRODUCTION

Ectopic thyroid tissue results from abnormal embryologic migration of the thyroid gland from its origin at the foramen caecum toward its usual pretracheal position. The lingual region is the most common site of ectopic thyroid tissue. The condition is uncommon and is reported disproportionately in females. Clinical presentation ranges from an incidental midline mass to dysphagia, dysphonia, bleeding, snoring, sleep-disordered breathing, airway obstruction, or symptoms of thyroid dysfunction. Thyroid dysfunction, particularly hypothyroidism, is common in reported series, although euthyroid patients are well described. [1-5]

The diagnostic challenge is particularly relevant in children because an ectopic thyroid may be mistaken for a thyroglossal duct lesion, lymphoid tissue, dermoid/epidermoid cyst, or another benign or neoplastic midline mass. Ultrasonography can demonstrate absence of the orthotopic gland and suggest an ectopic soft-tissue mass, while radionuclide scintigraphy provides functional confirmation and is especially useful when the ectopic tissue may be the patient's only functioning thyroid. [1,3,6]

We report an 8-year-old euthyroid girl with a clinically palpable suprahyoid midline swelling whose imaging demonstrated an ectopic lingual thyroid. The case emphasizes the value of combining clinical examination, ultrasonography, thyroid function assessment, and radionuclide scintigraphy before considering invasive treatment.

Case Presentation

Patient Information

An 8-year-old girl presented with a swelling in the upper midline of the neck that had been noticed for approximately 6 months.



Figure 1. Clinical Photograph Showing the Midline Suprahyoid

Swelling. The Arrow Indicates the Clinically Appreciable Central Prominence.

Clinical Findings

On examination, a well-defined, ovoid swelling measuring approximately 2×3 cm was present in the midline of the upper neck, approximately 2 cm from the inferior border of the symphysis menti. The swelling was firm, smooth-surfaced and non-tender. It moved with deglutition. No clinically significant cervical lymphadenopathy was noted. The clinical photograph demonstrates the midline suprahyoid prominence (Figure 1).

Diagnostic Assessment

Thyroid function tests were reported as within normal limits. Ultrasonography of the neck showed that the thyroid gland was not visualized in its normal pretracheal location. An irregular, ill-defined echogenic soft-tissue lesion was described at the junction of the posterior one-third and anterior two-thirds of the tongue, measuring approximately 1.4×1.0 cm, and moving with deglutition. No localized collection or significant lymphadenopathy was reported.

A thyroid uptake scan using ^{99m}Tc -pertechnetate was subsequently performed. The report documented no evidence of tracer uptake in the thyroid bed and a focal area of tracer activity in the midline upper neck at the region of the base of the tongue. The salivary glands were visualized. The reported impression was that the findings were suggestive of ectopic (lingual) thyroid, with mildly increased trapping and a possible contribution from TSH effect (Figure 2).



Figure 2. ^{99m}Tc -pertechnetate Thyroid Scintigraphy Demonstrating Focal Radiotracer Uptake in the Midline Tongue-base/Upper-neck Region with no Uptake in the Normal Thyroid Bed, Supporting Lingual Ectopic Thyroid.

Diagnostic Reasoning and Differential Diagnosis

The principal differential diagnoses for a midline suprahyoid swelling

in a child include thyroglossal duct cyst, dermoid or epidermoid cyst, enlarged lymphoid tissue, benign soft-tissue lesions, and ectopic thyroid tissue. The firm consistency and movement with deglutition raised suspicion for thyroid-related tissue. The absence of the thyroid in its expected pretracheal position on ultrasonography, together with focal radionuclide uptake in the tongue-base region, established the diagnosis of ectopic lingual thyroid. Functional imaging was particularly important because ectopic thyroid tissue can represent the only functioning thyroid tissue.

Therapening is essential before invasive procedures are considered. In an asymptomatic euthyroid child, conservative management with structured long-term clinical and biochemical surveillance can avoid unnecessary intervention and the risk of permanent thyroid hormone dependence.

Learning Points

- A midline upper-neck mass that moves with deglutition can represent ectopic thyroid tissue even when thyroid function is normal.
- Ultrasonography should assess both the lesion and the expected thyroid bed.
- ^{99m}Tc-pertechnetate scintigraphy is valuable for confirming functioning ectopic thyroid tissue and determining whether orthotopic thyroid tissue is present.
- Before biopsy or excision of a suspected lingual/suprahoid mass, ectopic thyroid should be excluded because the ectopic tissue may be the patient's only functioning thyroid.
- Asymptomatic euthyroid patients may be managed conservatively, provided that appropriate clinical and thyroid-function surveillance is maintained.

REFERENCES

1. Rahbar R, Yoon MJ, Connolly LP, Robson CD, Vargas SO, McGill TJ, Healy GB. Lingual thyroid in children: a rare clinical entity. *Laryngoscope*. 2008;118(5):936-940. doi:10.1097/MLG.0b013e31816f6922.
2. Guerra G, Cinelli M, Mesolella M, Tafuri D, Rocca A, Amato B, Rengo S, Testa D. Morphological, diagnostic and surgical features of ectopic thyroid gland: a review of literature. *Int J Surg*. 2014;12 Suppl 1:S3-S11. doi:10.1016/j.ijssu.2014.05.076.
3. Kumar V, Nagendhar Y, Prakash B, Chattopadhyay A, Vepakomma D. Lingual thyroid gland: clinical evaluation and management. *Indian J Pediatr*. 2004;71(12):e62-e64. PMID:15630329.
4. Kakudo K, et al. [Use an appropriate thyroid embryology/thyroid dysgenesis reference required by the target journal; verify bibliographic details before submission.]
5. Fakadej T, Balar AB, Kota S, Lakhani DA, Joseph JT. Lingual thyroid: case report and brief review of the literature. *Radiol Case Rep*. 2023;18(1):312-316. doi:10.1016/j.radr.2022.10.039.
6. Aktolun C, Demir H, Berk F, Metin Kir K. Diagnosis of complete ectopic lingual thyroid with Tc-99m pertechnetate scintigraphy. *Clin Nucl Med*. 2001;26(11):933-935. doi:10.1097/00003072-200111000-00009.
7. Sauer AB, Dowling EM, Bauman MMJ, Moore EJ, Carlson ML, Van Abel KM. Does surgical management still play a role in the management of ectopic lingual thyroid: institutional experience and systematic review of the literature. *Am J Otolaryngol*. 2022;43(3):103461. doi:10.1016/j.amjoto.2022.103461.
8. Miller JH. Lingual thyroid gland: sonographic appearance. *Radiology*. 1985;156(1):83-84. doi:10.1148/radiology.156.1.2988013.
9. CARE Checklist. CARE Case Report Guidelines. Available at: <https://www.care-statement.org/checklist>. Accessed 29 August 2026.