

Rare Presentation of Subclinical Hypothyroidism from a Lingual Thyroid

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A 25-year-old female, presented with a posterior lingual mass, without pain nor bleeding (Figure 1). She became more prone to shortness of breath upon exercise and felt uncomfortable swallowing solid food but denied snoring, cold intolerance, or unintentional weight gain. Examination revealed a mass posterior to her tongue and no palpable thyroid gland at the thyroid fossa. Investigations revealed thyroid function tests (TFTs): FT4 1.29 µg/dl (0.89-1.76); TSH 17,049 IU/ml (0.55-4.78); T3 total 1.27 µg/dl (0.6-1.81). Fiber optic laryngoscopy showed a smooth, slippery, unilocular mass attached to the base of tongue. CT cervical-head showed a high-density 2.6 x 2.2 x 2 cm³ soft tissue mass posterior to the tongue, which narrowed the airway to a diameter of 0.4 cm (Figure 2). The mass was likely to be thyroid tissue. To reduce the obstructive symptoms from the mass we did excisional surgery followed by the administration of levothyroxine 25 µg once daily. She had no complaints after surgery. A follow-up thyroid function profile showed FT4 1.46; TSH 6.467; T3 1.59. Histopathology of the tissue revealed multiple thyroid follicles consistent with ectopic thyroid (Figure 3).



Figure 1. Lingual thyroid in the oropharynx.

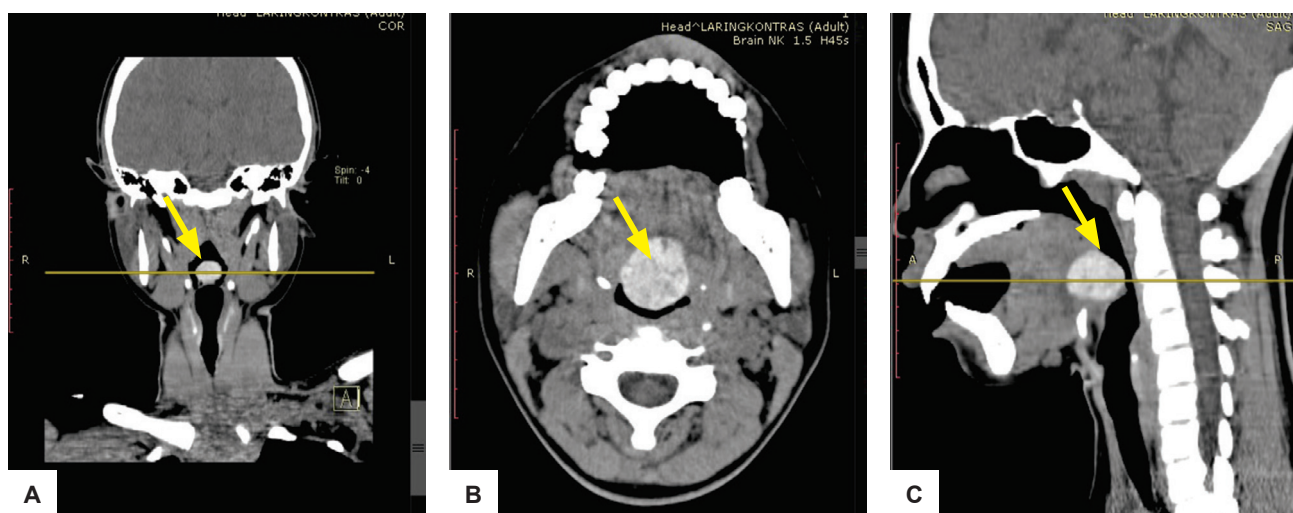


Figure 2. Head and neck CT scan examination. **(A)** Coronal and **(B)** axial enhanced neck CT scan demonstrates well-defined homogeneous enhancing mass without calcification (yellow arrows); **(C)** A sagittal enhanced CT scan of the neck demonstrates enlargement of the thyroid gland. It shows the location of the thyroid gland above the normal thyroid (sublingual position) (yellow arrow).

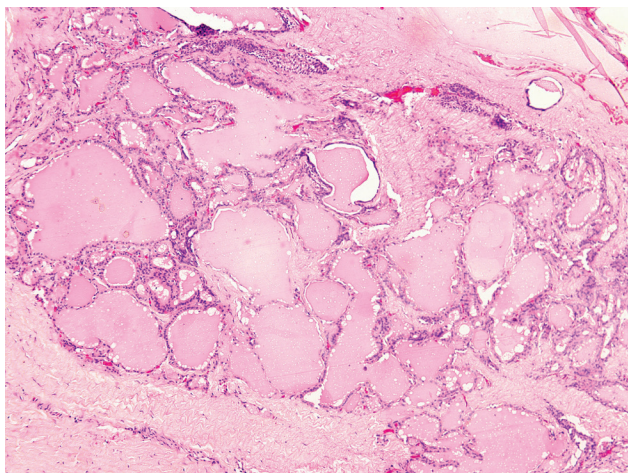


Figure 3. Microscopic examination shows various sized thyroid follicles with hyperplastic change (H&E, 400x).

The ectopic thyroid is a rare congenital disorder with incidence between 1:3000 – 1:300000 although it could present with thyroid dysfunction. Most ectopic thyroid cases are euthyroid, only a few patients are subclinically hypothyroid.¹ It is usually asymptomatic but as the mass increases it can cause obstructive symptoms.² At the age of puberty, thyroid hormone deficiency causes hypertrophic glands and results in obstructive symptoms. Asymptomatic cases can be monitored with serial exams or receive hormonal therapy with levothyroxine. However, such treatment does not have a good success

rate. The reduction in size occurs very slowly, without significant decreases in volume.¹ Therefore, the decision to excise the mass was made for this patient. After surgery, monitoring of symptoms and thyroid hormone levels should be done regularly. Levothyroxine supplementation is recommended to prevent overt hypothyroidism and to suppress production of TSH.^{3,4}

Ethical Consideration

Patient consent was obtained before submission of the manuscript.

Statement of Authorship

All authors certified fulfilment of ICMJE authorship criteria.

Author Disclosure

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