

# Lingual thyroid associated with hypothyroidism as a cause for short stature

Nitin Kapoor, Sahana Shetty, Nihal Thomas, Thomas Vizhalil Paul

Department of Endocrinology,  
Christian Medical College,  
Vellore, Tamil Nadu, India

## Correspondence to

Professor Thomas Vizhalil Paul,  
thomasvpaul@yahoo.com

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## DESCRIPTION

A 19-year-old college girl presented with lack of linear growth since 11 years of age, primary amenorrhoea and failure of development of secondary sexual characters. There was no significant history prior to this. On examination, she was a cheerful girl, having a short stature. Her height was 135 cm (25th centile) and weight 36 kg. She had dry skin with a yellowish tinge. There was no goitre, dysmorphism or syndromic features. Her sexual maturity staging was prepubertal. The rest of the examination was normal except for delayed relaxation of ankle jerks. Her thyroid-stimulating hormone was 150  $\mu$ IU/mL (normal 0.8–4.2) with a free T4 of 0.4 ng/L (normal 0.8–1.8). Her

follicle-stimulating hormone and prolactin were 0.8 mIU/mL and 58 ng/mL (normal 2–24), respectively. Her bone age was between 10 and 11 years (figure 1) and a technetium<sup>99</sup> nuclear scan (figure 2) revealed a lingual thyroid (LT) gland along with no thyroid tissue in the neck. Her thyroid antibodies were negative. Her short stature was due to hypothyroidism and primary amenorrhoea was attributed to hyperprolactinaemia secondary to untreated hypothyroidism. The diagnosis in this case was juvenile hypothyroidism associated with thyroid locating in an ectopic position.

Any disruption of the descent during the embryonic development of the thyroid gland will result in ectopic thyroid (most cases are lingual).<sup>1</sup>

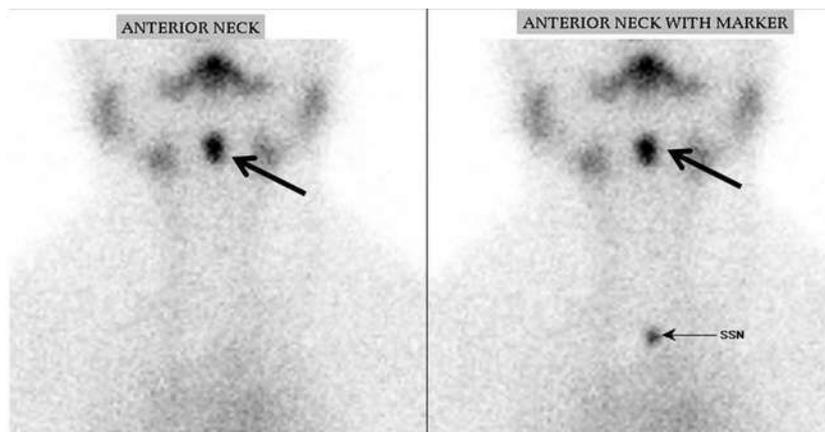
The presenting features of LT are dysphagia, dysphonia, bleeding and fullness in the throat, or an incidental finding.<sup>2</sup> A proportion of patients with LT may be associated with hypothyroidism during their second decade, which may result in delayed puberty and deceleration of growth. Surgery is preferred when there are symptoms such as dysphagia or dyspnoea.<sup>3</sup>



**Figure 1** X-ray of the hand showing bone age of 10–11 years.

## Learning points

- ▶ Lingual thyroid may be associated with hypothyroidism resulting in cases of short stature and delayed puberty.
- ▶ The symptoms secondary to lingual thyroid include dysphagia, dysphonia, bleeding and fullness in the throat.



**Figure 2** Technetium<sup>99</sup> nuclear scan displaying a lingual thyroid gland along with no thyroid tissue in the neck.



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