

Ectopic thyroid mimicking a thyroglossal cyst: A case report

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ABSTRACT

Ectopic thyroid is a rare developmental abnormality. Clinically, it may be difficult to differentiate an ectopic thyroid gland from a thyroglossal cyst. Investigations such as thyroid function test and a thyroid (Tc-99m) scan will help in making the diagnosis.

KEY WORDS: Ectopic thyroid, Hypothyroidism, Thyroglossal cyst

INTRODUCTION

Ectopic thyroid is a rare condition with a prevalence of about 1 in 100,000.^[1] Ectopic thyroid is more common in females, especially in the Asian population.^[2] It may present at any age from infancy to adulthood, but it is most common during childhood. Ectopic thyroid tissue is a developmental defect of the thyroid gland during its passage from the floor of the primitive gut to its final destination in the neck. Children with ectopic thyroid gland are mostly euthyroid, but some of them may have hypothyroidism.^[3] Medical management in the form of thyroid thyroxine supplementation may be required in children presenting with hypothyroidism. We report a child with ectopic thyroid mimicking a thyroglossal cyst.

CASE REPORT

A 6-year-old girl child presented to our outpatient department with a midline swelling in the neck for the past 3 months which has been gradually increasing in size. There was no history of pain over the swelling, difficulty in swallowing, cold intolerance, hoarseness of voice, or dryness of skin. The child attained normal milestones. There was no family history of thyroid problems. On physical examination, a midline swelling 2 cm by 2 cm in size was present. The mass was firm

and not tender. System examination was normal. The patient was diagnosed to have thyroglossal cyst and planned for surgery.

Investigation showed that thyroxine (T₄) level of 6.06 µg/mL (normal 5.2–14.8 µg/mL), a tri-iodothyronine (T₃) level of 2.4 µg/mL (normal 1.2–3.8 µg/mL), and thyroid-stimulating hormone (TSH) level of 28 µIU/mL were elevated (normal 0.3–5.0 µIU/mL). Technetium (Tc-99m) pertechnetate thyroid scan showed the midline swelling to be the only functioning thyroid gland. No functional thyroid gland was detected in the normal location in the neck. The bone age was done and it was slightly delayed at 5 years as determined by the Greulich and Pyle chart.

A revised diagnosis of ectopic thyroid was made and the child was started on L-thyroxine 50 µg/day. No surgery was advised. On follow-up, the child is doing well and there was a reduction in the size of the swelling.

DISCUSSION

The most common location for ectopic thyroid is lingual in more than 90% of the cases and sublingual thyroids making up <10% of the cases. This may be found anywhere along the course of the descent of the thyroid gland. This case demonstrates the clinical difficulty in differentiating an ectopic thyroid gland from a thyroglossal cyst.^[4] Inadvertent removal of the ectopic thyroid gland mistaken as a thyroglossal cyst has been reported in literature, leading to

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hypothyroidism.^[5] Hence, all suspected cases of thyroglossal cyst should be investigated with thyroid function test and a thyroid (Tc-99m) scan^[6] to rule out ectopic thyroid and avoid inappropriate surgery.^[7]

CONCLUSION

This case demonstrates the clinical difficulty in differentiating an ectopic thyroid from a thyroglossal duct cyst. Hence, in such situations, the child should have thyroid function tests, ultrasonography and thyroid (Tc-99m) scan to locate the additional functioning thyroid tissue. This avoids subjecting the patient to inappropriate surgery and the subsequent long term sequelae of hypothyroidism.

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