

Lingual Thyroid – A Case Report

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Lingual thyroid is a rare congenital anomaly with a reported incidence of 1 in 100000. Here is a case of lingual thyroid in a 12 years old female child, presented with a small virtually asymptomatic mass in the base of the tongue. Investigations revealed absence of thyroid tissue in the neck and hypothyroidism. Treatment with Levothyroxine resulted in euthyroid state and an appreciable shrinkage in the size of the lingual mass.

[Dinajpur Med Col J 2010 Jan; 3 (1): 45-46]

Key words: Lingual thyroid, Ectopic thyroid.

Introduction

Lingual thyroid is a rare anomaly with a reported incidence of 1 in 100000.¹ Of all ectopic thyroids 90% are found to be lingual thyroid. Although the exact pathogenesis of this ectopic, accessory thyroid tissue is not known, it generally originates from the epithelial tissue of the non-obliterated thyroglossal duct.^{2,3,4} Here is a case of lingual thyroid presented without any classical symptoms. Diagnosis and management of the case is described. The rarity of the condition and the paucity of publications in the literature interested us to publish the case report.

The Case Report

Miss. S K aged 12 years reported with the complaint of a swelling on her tongue for last 3 years. Her parents were very much worried about the swelling. On asking the girl about dysphagia, dyspnoea or bleeding from the mouth, she denied any such complaints. Examination revealed a pinkish mass at the base of the tongue just behind the circumvallete line. (Fig –1)

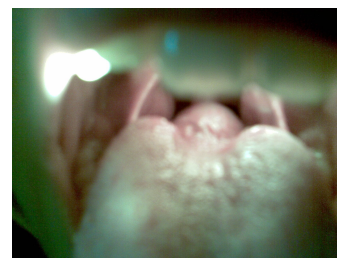


Figure 1. Showing mass in the base of the tongue

A Tc99m thyroid scan was done which revealed total absence of thyroid tissue in the neck and concentration of radionuclide was evident in the base of the tongue only (Fig-2). Which revealed total absence of thyroid tissue in the neck. Which confirmed the diagnosis as lingual thyroid. Serum TSH was estimated and showed high TSH level (9.17miu/ml). The patient was given 50µgm of levothyroxine in the morning in empty stomach daily, with appreciable change in the size of the mass in 3 months

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Tc99m thyroid scan

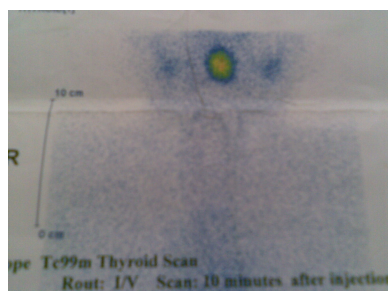


Figure 2. Radionuclide scan showing tracer in the tongue base with no tracer in the neck

Discussion

Lingual thyroid gland is a rare clinical entity caused by failure of the gland's anlage to descend early in the course of embryogenesis. It may present with symptoms of dysphagia, upper airway obstruction, or even sore throat at anytime from infancy through adulthood.^{1,2,3} Interestingly this patient presented without any such symptoms described above, her only symptom was swelling in the base of the tongue. Diagnosis was made from thyroid scan, which showed a non-descendant thyroid tissue in the base of the tongue and absence of tracer in the anterior neck. Normally thyroid gland descends along a path from foramen cecum in the tongue to the final position in front of trachea.¹

The presenting patient was in a state of hypothyroidism. It has been seen that ectopic thyroid secretions are not adequate to maintain a euthyroid state. Upto 70% of patients with lingual thyroid have hypothyroidism and 10% suffer from cretinism. Other authors find 33% of their patients suffer from hypothyroid. Lingual thyroid is 7 times higher in females.

The standard treatment of lingual thyroid varies. Surgical treatment is preferred when there are symptoms like dysphagia or dyspnoea. In patient with obstructive symptom, Iodine131 ablation of ectopic thyroid tissue has been proven successful and may be advantageous than surgery. In patient lacking thyroid tissue in the neck, the lingual thyroid can be excised and autotransplanted to the

muscles of the neck. In this case, the lingual mass was small and was not producing any symptom. She was given L-thyroxine 50µgm OD. She became euthyroid in four weeks. A significant change in the size of the lingual mass was observed after 3 months of treatment. The patient is still under periodic follow up.

References

1. Anand SS, Sood V, Kumar PG, Suryanayna KM, Kotwal N: Case report-Lingual thyroid, MJAFI 2006,vol-62. No-2.
2. Doglus PS, Baker AW. Lingual thyroid, Br J Oral Maxillofacial Surg 1999, 32:123-34.
3. Batsakis JS, El-Naggar, Luna MA: Thyroid gland ectopias, Ann OtolRhinol Laryngol 1996, 105:996-1000.
4. Lieberum B, ten Cate WJ: Diagnosis and therapy of thyroid tissue of the base of the tongue, HNO,1996 Jul;44(7)393-6.
5. Gupta M, Motwani G: Lingual thyroid, Ear Nose Throat J,2009 Jun: 88(6):E1
6. Williams JD, Sclafani AP, Slupchinskij O, Douge C. Evaluation and management of lingual thyroid gland. Ann Otol Rhinol Laryng 1996;105:312-16
7. Kumar V, Nagendhar Y, Prakash B, Chattopadhyay A, Vepakomma D: Lingual thyroid gland: Clinical evaluation and management. Indian J Pediatr. 2004 Dec: 71(12);e62-64.
8. Kutla R, Kalchioglu T, Baysal T, Sigirci A, Alkan A: Lingual thyroid: A case report,The Journal of Radiology. 2002 April (www.jradiology.org) download on 07-12-09.
9. Neinas,FW, KD,Gorman CA, Devine KD, Woolner LB. Lingual thyroid. Clinical characteristics of 15 cases. Ann Intern Med.1973; 79:206-210.
10. Williams JD, Sclafani AP, Slupchinskij O, Douge C: Evaluation and management of the lingual thyroid gland. Ann Otol Rhinol Laryngol 1996, 105: 312-316.
11. Jones P. Autotransplantation in lingual ectopia of the thyroid gland: review of the literature and report of a successful case. Arch Dis Child. 1961; 36:164-70