



ORIGINAL RESEARCH PAPER

Medicine

ASYMPTOMATIC LINGUAL THYROID --- A CASE REPORT

KEY WORDS:

Rajendra Dhar

Professor, Department of Medicine, NIMS Medical College, Jaipur.

ABSTRACT

A Lingual Thyroid is a rare entity and refers to an ectopic thyroid tissue at the base of tongue. Of all ectopic thyroid tissues, 90% are found to be lingual thyroids. Clinical presentation may range from asymptomatic to dysphagia, dysphonia, dyspnea or a foreign body sensation in the throat. We report the case of a 22 years young male, known case of Allergic Rhinitis who presented with foreign body sensation in throat associated with mild dysphagia especially with liquids since a month. Imaging, Biochemistry and Radio-isotope Scanning confirmed the diagnosis of active Lingual Thyroid with absence of normal thyroid gland. Patient was given a treatment of allergic rhinitis and a short course of steroids. Patient became completely asymptomatic.

INTRODUCTION

Lingual Thyroid is an ectopic thyroid tissue present in the base of tongue. It results from failure of normal caudal migration of thyroid from foramen caecum down to its normal eutopic pre-laryngeal site¹. Thyroid tissue may be found anywhere along the thyroglossal duct but complete arrest with thyroid tissue located at the base of tongue is most common and accounts for 90% cases of ectopic thyroid⁷.

Most patients with lingual thyroid show no symptoms but if mass is enlarged, may get dysphagia, dysphonia, dyspnea or a feeling of suffocation². Diagnosis is based on symptoms, if any, plus a suspicion of ectopic thyroid, especially if thyroid gland at its normal place is missing. Clinical examination and thyroid function tests are essential as 70% cases of lingual thyroid are hypothyroid³. Thus diagnosis is based on imaging, i.e. ultra-sonography, CT scan and MRI of soft tissue of neck and confirmed by Technetium Tc-99m scanning.

Treatment can be medical or surgical. Medical treatment includes observation, suppressive therapy (to reduce mass) by thyroxine if hypothyroid and radio-active Iodine therapy⁴. Surgery is indicated in significant symptoms of dysphagia, dysphonia, dyspnea and obstructive sleep apnea⁴. Using levothyroxine to suppress TSH is mainstay of conservative treatment aiming to correct hypothyroidism and control gland size and local symptoms⁵.

Case Report

A 22 years young male patient, known case of allergic rhinitis presented with a foreign body sensation in the throat and mild dysphagia with liquids for about a month. He visited an ENT specialist who examined him clinically and by fibre-optic laryngoscope and nothing abnormal was detected. Thyroid function tests were done and found to be normal.

On examination. Clinical examination was normal. Routine investigations were within normal limits.

Thyroid function tests revealed T3=91.6, T4=8.98 and TSH=2.6, well within the reference value.

Ultrasonography Of Neck:

No thyroid tissue in its normal position. Well defined echogenic s 25 x 14 mm in submental area above hyoid bone (Fig. 1).



Fig. 1: USG of Thyroid & soft tissue Neck

CECT scan of Neck :

Thyroid gland not visualized in its normal position. Lobulated homogenously enhancing hyperdense lesion 26 x 24 x 28 mm on floor of mouth above hyoid bone seen (Fig. 2)



Fig. 2: CECT scan of Neck (2 photographs)

Technetium Tc 99 m Thyroid Scan :

Ectopic functioning thyroid tissue seen at the base of tongue (Fig. 3)

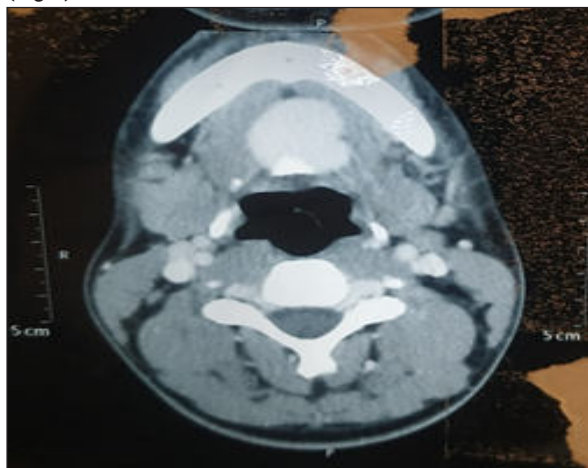


Fig. 3: Tc 99m Thyroid Scan

Thus patient was diagnosed as a case of lingual thyroid with euthyroid status. Patient was explained about the disease and given a treatment for allergic rhinitis plus a short course of steroids (0.5 mg Prednesolone/kg body weight/day for 1

week). He became asymptomatic and has been advised to remain under observation for symptoms and thyroid functions.

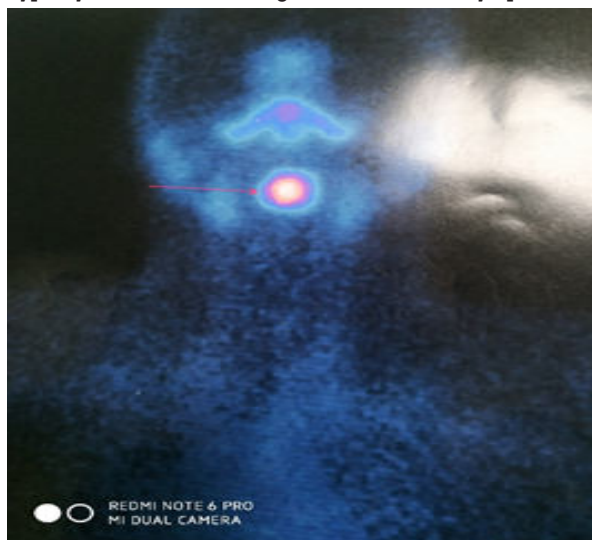
DISCUSSION

Lingual thyroid is a mass of ectopic thyroid tissue located at the base of tongue caused by a developmental anomaly of descent of thyroid gland⁶. Embryologically, thyroid gland develops from the primitive pharynx and migrates anteriorly and caudally to its adult location in pre tracheal position¹. Thus ectopic thyroid may be observed anywhere along the downward path of the gland.

Most patients with lingual thyroid show no symptoms but if mass is enlarged there may be dysphagia, dysphonia, dyspnea or a feeling of suffocation². In our patient, only symptom was mild dysphagia with liquids for a month only, besides symptoms of allergic rhinitis. The condition is quite rare, occurring once in 100,000 to 300,000 persons, with a 1 : 4 female pre-ponderance⁷.

Diagnosis is based on symptoms, if any, plus a suspicion of ectopic thyroid if normal thyroid tissue is missing. Clinical examination of thyroid gland and biochemical thyroid function tests are essential as 70% of cases are hypothyroid⁸. However our patient was male and euthyroid. Thyroid tissue is detected by imaging i.e. ultrasonography, CECT and MRI scan of the neck and confirmed by Technecium (Tc 99) scanning. In our case, well defined mass was located at the base of tongue which was confirmed as thyroid tissue by Tc 99m scanning.

Treatment of lingual thyroid includes non-surgical and surgical methods. Medical treatment consists of **observation, suppressive therapy by thyroxine, if hypothyroid and treatment with radio-active iodine**⁴. In our patient as there was no compromise on pharyngeal cavity as no swelling or bulge was found on fibre-optic laryngoscopy, patient became asymptomatic with a short course of steroids and anti allergic treatment. Surgery is indicated in symptomatic patients with significant dyspnea, dysphagia, dysphonia and obstructive sleep apnea⁵. In patients lacking thyroid tissue in the neck, lingual thyroid can be excised and auto-transplanted to the muscles of neck⁹. Using levothyroxine to suppress TSH is the mainstay of conservative treatment aiming to correct hypothyroidism and control gland size and local symptoms⁵.



CONCLUSION

Although lingual thyroid is a rare condition occurring in 1 in 100,000 to 300,000 persons with a female pre-ponderance^{8,7}, it needs to be kept in mind while dealing with symptoms of dysphagia, dyspnea, dysphonia or suffocation in throat in young adults or in case of absence of normally positioned

thyroid gland. Its approach should be trans-disciplinary and should take into consideration the hormonal aspects and clinical condition of the patient to avoid unnecessary biopsies or surgical excision before confirmation of the thyroid tissue.

REFERENCES

- 1) Kim M.S. et.al. A case of subclincal hypothyroidism with lingual ectopic thyroid. *Jour. of Cl. Res. In Paed. Endocrinology*.2015;7(2):148-150.
- 2) Kumar S.S. et.al. Lingual Thyroid – Conservative management or surgery? A case report. *Indian Journal of Surgery*.2013;75(Supplement).18-19.
- 3) Tiscany A.J. et.al. Lingual thyroid causing dysphonia -Case report. *Sao Paulo Medical Journal*.2004;122(2):67-69.
- 4) Pelliny R. et.al. Ectopic lingual goitre treated by trans-oral robotic surgery. *Acta Otorhinolaryngologica Italica*.2013;33(5):343-346.
- 5) Kansal P. et.al. Lingual thyroid – Diagnosis and Treatment. *Archives of Int. Med*.1987;147:2046-2048
- 6) William J.D. et.al. Evaluation and Management of lingual thyroid gland. *Ann.Otol.Rhinol.Laryngol*.1996;105:312-316.
- 7) Ibrahim N.A. et.al. Ectopic thyroid -etiology, pathology and management. *Hormones*.2011;10:261-269.
- 8) Jones P. et.al. Auto-transplantation of lingual ectopia of thyroid gland. Review of literature and report of successful case. *Arch.Dis.Child*.1961;36:164-170.
- 9) Arancibia P. et.al. Lingual thyroid report of three cases. *Thyroid*. 1998;8:1055-1057. s