

ASYMPTOMATIC LINGUAL THYROID:ONE-YEAR FOLLOW-UP WITH-THYROXINE SUPPRESSIVE THERAPY- CASE REPORT

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SUMMARY

Lingual thyroid is a rare congenital anomaly, resulting from maldescent of thyroid tissue during embryonic development. Here we describe a case with lingual thyroid and subclinical hypothyroidism. Suppressive therapy with L-Thyroxine resulted with an uneventful one-year follow-up period.

In view of the clinical course of this patient and review of the literature, we conclude that, suppressive therapy with L-Thyroxine should be preferred to surgical therapy initially in patients with asymptomatic lingual thyroid.

Key Words: Lingual thyroid / asymptomatic / L-Thyroxine

INTRODUCTION

Lingual thyroid is a rare congenital anomaly, resulting from maldescent of thyroid tissue during embryonic

development(1). There is controversy regarding the initial mode of treatment in this condition. To our knowledge, medical therapy with lifelong L-Thyroxine suppression(2) and early surgical ablation(3) have been proposed as therapeutic options previously. Here we describe a case with lingual thyroid successfully treated with L-Thyroxine suppression for one year.

CASE REPORT

In March 1994, a 21-year old woman was admitted to our clinic with an incidentally recognized mass located at the tongue base. She gave no history of past or present thyroid disease nor there were any clinical symptoms and signs that could be related to hypo/hyperthyroidism. On physical examination, a 2.5x2.5 cm., vascular, smooth surfaced nodular mass situated at the posterior third of the tongue was found (Fig. 1). Thyroid function tests showed a biochemical hypothyroidism: T₃:174 nmol/L (2.67 nmol/L; normal range: 1.2-3.4 nmol/L), T₄:5.4 nmol/L (69.5 nmol/L; normal range:41-142 nmol/L), TSH(thyroid



Fig. 1.
Lingual
thyroid
located
at the
posterior
third of
the tongue



Fig. 2.
Technetium (Tc)^{99m}
Pertechnetate
scan showing
accumulation
at tongue base
location with no
uptake in the
normal anatomical
position of the thyroid
gland (arrow = Indicating
the jugular notch)

stimulating hormone): 42 mIU/L (normal range: 0.3-5.0 mIU/L). The results of the technetium (Tc)^{99m} pertechnetate scan showed accumulation at the location of the tongue base with no uptake at the normal anatomical position of the gland (Fig. II). Fine-needle aspiration biopsy showed follicle epithelial cells with normal morphology.

The treatment with 15 ug/d L-Thyroxine was started and after 3 months the dose was tapered to 100 ug/d because of elevation of T₄ to above upper normal limit (T₄: 171.1 nmol/L). At that time, serum TSH level was 0.1 mIU/L. Furthermore, size of the mass was found to be reduced to 2x2cm. The patient was admitted for control visits every 3 months. No change in mass appearance or size was observed. TSH levels remained between 0.3-0.6 mIU/L and serum T₃ and T₄ levels were within normal ranges (not shown) until the end of the one-year follow-up period. On final visit in March 1995, fine-needle aspiration biopsy revealed follicle epithelial cells with normal morphology.

DISCUSSION

Lingual thyroid is a rare congenital anomaly resulting from complete maldescent of the thyroid tissue and its sequestration within the tongue substance. Its incidence has been estimated as 1:100,000(4). Over 400 patients with this condition have been reported (5). Presentation may be in the form of hemorrhage, pain, dysphagia, dyspnea or "fullness in the throat"(1). However, most patients are asymptomatic and about 20% of all cases show hypothyroidism (6). Risk of transformation to malignancy is about 3% and mostly observed histological type is papillary carcinoma(7). In this case, biopsy is an accurate method of diagnosis(8).

There is controversy regarding the initial mode of treatment in this condition. Kansal suggested lifelong thyroxine suppression(2) whereas Ijaduola proposed early surgical ablation considering the possibility of future malignant transformation(3). Transplantation of the thyroid tissue has also been mentioned(7).

Our patient was followed uneventfully with one-year L-Thyroxine suppressive therapy. In view of this

patient's course and low incidence of malignant transformation reported previously(6), we conclude that, asymptomatic lingual thyroid can initially be treated with L-Thyroxine suppression, provided that regular controls with thyroid function tests and appropriate physical examination are made. However, it must be emphasized that, surgery should be considered whenever above mentioned complications(i.e.malignant transformation, obstruction, further enlargement etc.) occur despite adequate medical therapy.

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