

原文題目(出處)：	<b>Ectopic Thyroid at the Base of the Tongue of a Young Patient</b>
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內文：

### Introduction

1. Lingual thyroid is defined as **an ectopic thyroid gland tissue located in the midline of the tongue base** . Lingual thyroid, which was first described in 1869 by Hickmann , is rarely observed in clinical practice.
2. Its incidence is estimated to be approximately **1 in every 100,000 people**, with pronounced **predominance of females** of 4 cases : 1 to 7 : 1 . Its occurrence is rare in children .
3. The tissue of the thyroid gland located ectopically at the base of the tongue can lead to symptoms such as **dysphagia(吞嚥困難)**, **dysphonia(發音困難)**, **upper airway obstruction**, or **bleeding** and may be associated with **thyroid dysfunction**.
4. The aim of this study was to report **a case of lingual thyroid in a 12-year-old girl**.

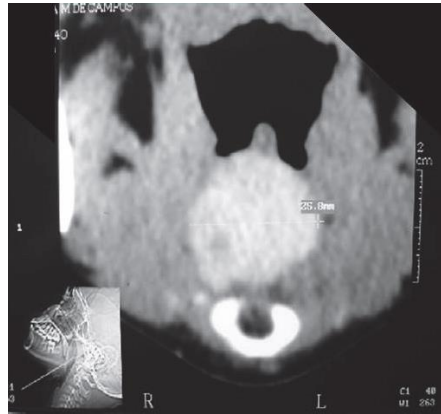
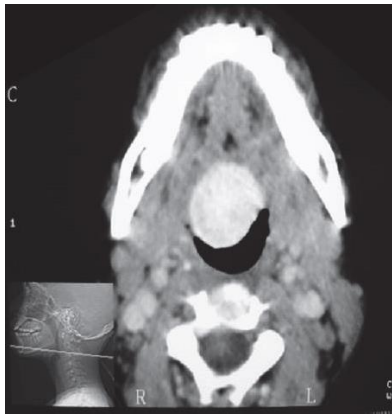
### Case report

1. The 12-year-old, melanodermic female patient searched for treatment accompanied by her mother in the Mato Grosso(馬托格羅索) Cancer Hospital's Department of Dentistry, complaining of **difficulty to swallow for about 15 days**.
2. **Extraoral examination:**  
satisfactory mouth opening and free and palpable condyles, without changes.
3. **Intraoral examination:**  
asymptomatic nodular lesion at the base of the tongue, which was difficult to see.



#### 4. X-ray findings:

**CT scan:** a round, well defined hyperdense lesion of approximately 25.8mm at its largest diameter, with infiltrative growth in the posterior region of the base of the tongue .

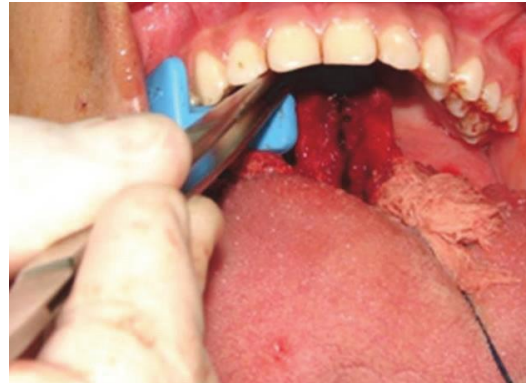


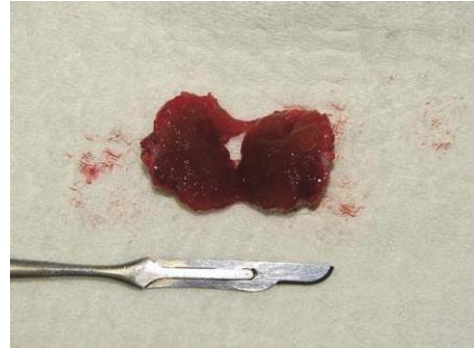
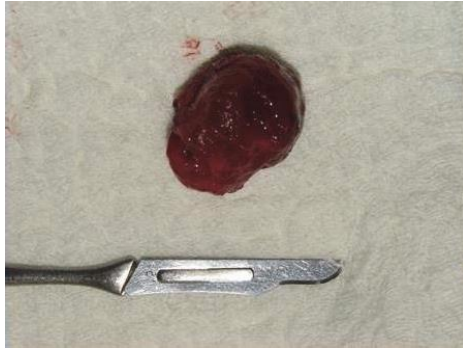
#### 5. Treatment plan:

**complete resection of the nodular lesion** at the base of the tongue (excisional biopsy).

#### 6. Surgical procedure:

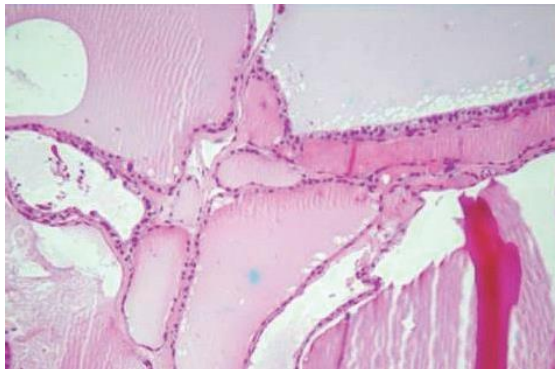
- (1) intraoral access under general anesthesia.
- (2) incision and detachment of the lingual mucosa
- (3) visualize a red-colored round-shaped nodular lesion at the base of the tongue
- (4) Excision



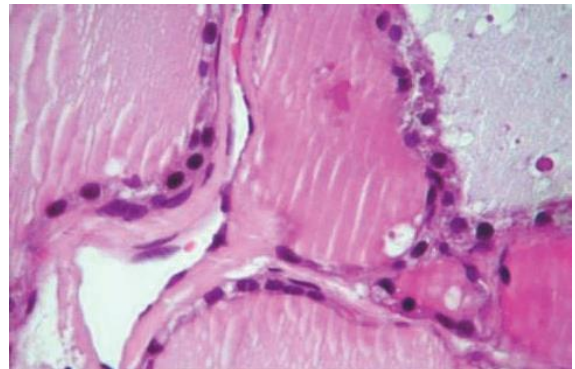


- (5) The patient remained hospitalized for twenty-four hours and then was discharged.
- (6) The medications prescribed were cefalotin 1 g, dipyron 1 g, ketoprofen 100 mg, hydrocortisone 500mg, ranitidine 50mg, and ondansetron 4mg.
- (7) She reported **improvement in swallowing after surgery**, even though she was **complaining of moderate pain in early postoperative period**.
- (8) After the diagnosis of lingual thyroid was established, the patient was referred to an endocrinologist for exams and medical follow-up. The patient is currently under medical supervision, but there is no need for hormone replacement therapy.

#### 7. Histopathological diagnosis: lingual thyroid



several follicular spaces with colloid content in their interior epithelial cells.

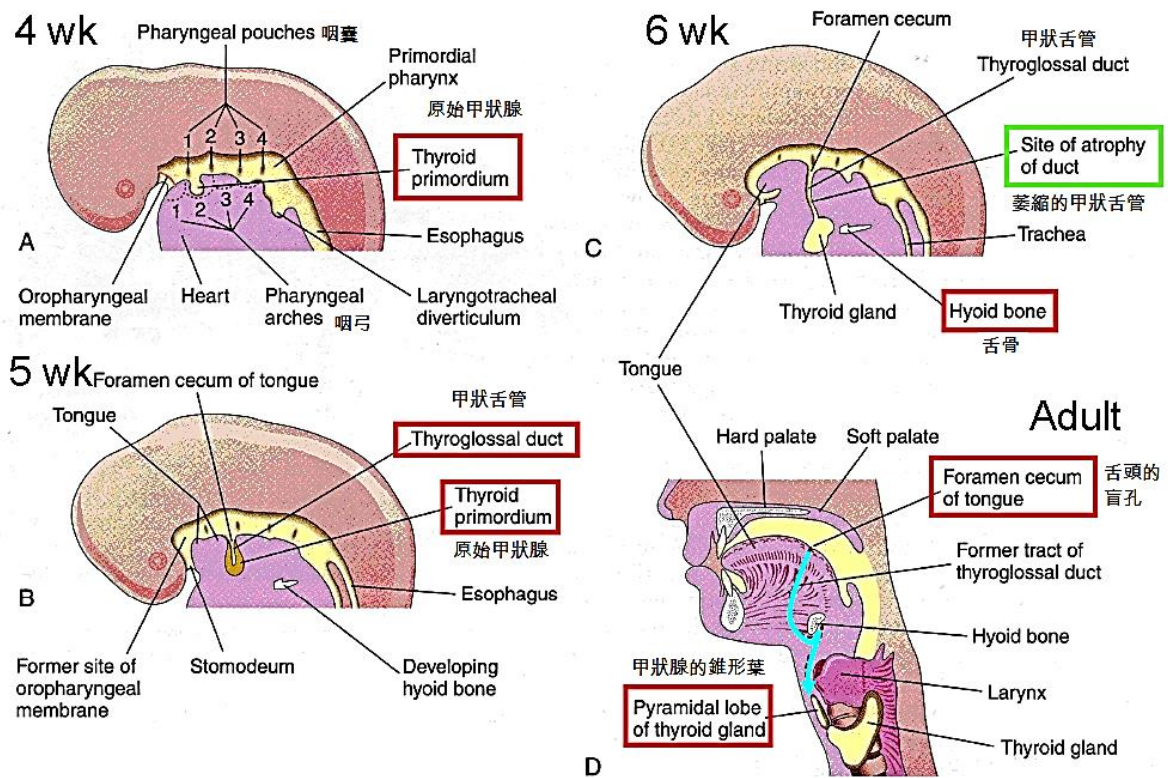


Colloid content surrounded by thyroid luminal epithelium classified as simple cuboidal glandular epithelium.

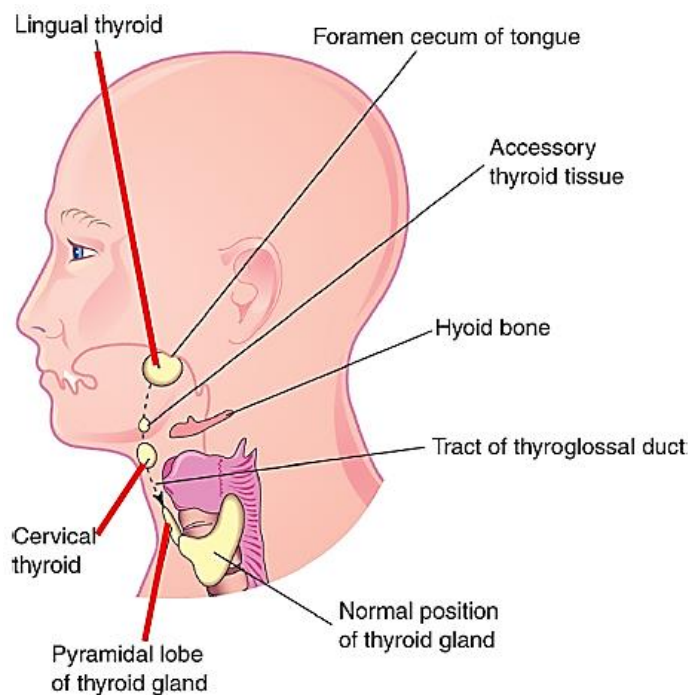
### Discussion

#### Ectopic gland

1. develops from **the floor of the primitive pharynx (原始會厭; primordial pharynx)** and migrates anteriorly and inferiorly until it reaches its final location in the adult in the final **pretracheal position**.



2. The **pathogenesis** of the ectopia of the thyroid tissue is not clear; however, it has been postulated that **maternal antithyroid antibodies would hinder the descent of the gland** during embryogenesis.
3. The ectopic thyroid tissue is **the result of abnormal embryonic development and migration of the gland**. It may be observed anywhere along the downward path of the gland .



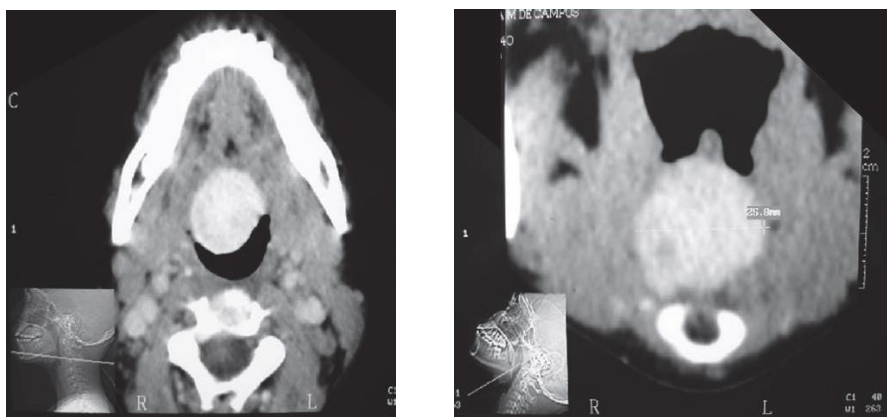


### Clinically,

1. Most patients who have lingual thyroid **show no symptoms**.
  2. There are cases where the mass can be enlarged and cause **dysphagia, dysphonia, dyspnea**, or a **feeling of suffocation**.
- ★ In the reported case, the difficulty in swallowing was what triggered the search for diagnosis and treatment.

### Diagnosis

1. The diagnosis is mainly based on clinical and imaging examinations
  2. **Palpation** of the neck is essential in order to check for the presence or absence of the thyroid gland in its normal position.
  3. **Thyroid function tests**(甲状腺功能検査) should also be performed, but this examination may often be normal.
  4. The most important medical diagnostic tool is technetium **TC-99m scanning with sodium**, **computed tomography(CT)**, and **magnetic resonance imaging (MRI)**.
- ★ In this case, it was possible to observe, through the CT scan, **a round, well defined hyperdense nodular mass at the posterior region of the base of the tongue**.



5. An **excisional biopsy** of the lesion was performed and the piece of the lesion was sent for histopathological analysis for diagnostic purposes. At that moment, the possibility that the injury could be *lingual thyroid* had not yet been suggested.
- ★ Although in this case thyroid function and other imaging tests were not performed before the surgical intervention as, by then, the surgery team was not working with the possibility of lingual thyroid, it is imperative to emphasize their importance.

6. The surgical excision of the lingual thyroid shall not be attempted **until radioactive isotope scan has determined that there is adequate thyroid tissue in the neck.**
7. The treatment for this alteration can be therapeutic or surgical and must take into account the physiological needs for thyroid hormones and the severity of the symptoms.

Clinical control:

**observation, suppressive therapy, and treatment with radioactive iodine**

- ★ The main complaint of the patient in this case was *the difficulty in swallowing due to the volumetric increase in the base of the tongue*, which is one of the indications for surgical removal of the lesion.

Surgery indication:

**dyspnea, dysphagia, difficulty in speaking, or obstructive sleep apnea .**

- ★ After histopathological diagnosis was confirmed in this case, the patient was **referred to an endocrinologist for evaluation and conduct.**

Surgical approach:

In most of these cases, a **transcervical** or **transmandibular approach** is required

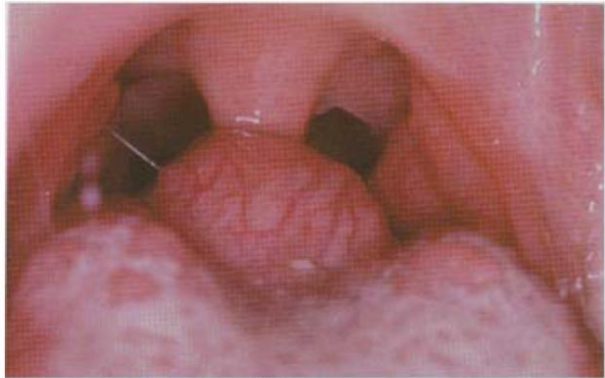
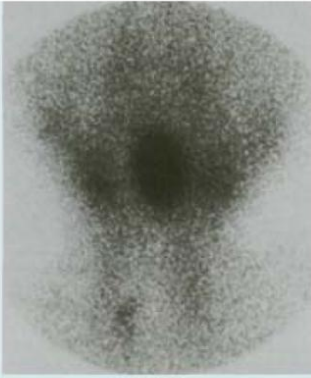
- ★ In the present case, a more conservative surgical approach with **intraoral access** was possible, which provided a good postoperative outcome to the patient and avoided scars on the area of the neck.

Alteration in surgical procedure	Normal surgical procedure
Oral examination & CT ↓ Excisional biopsy ↓ Surgical excision(intra-oral approach) ↓ <b>Histogical diagnosis</b> ↓ Referred to endocrinologist for f/u	Oral examination & CT ↓ Excisional biopsy ↓ <b>Histological diagnosis</b> ↓ Thyroid function test 、 Tc-99m scan ↓ Surgical excision(intra-oral approach) ↓ Post-op f/u 、 referred to endocrinologist

**Conclusion**

1. Lingual thyroid is a rare condition and its diagnosis in children is even rarer.
2. Its approach should be transdisciplinary and should take into consideration the **hormonal aspects of the patient** in addition to **the clinical condition of the lesion**.
3. In the presented case, the removal of the alteration was performed via conservative surgical procedure followed by immediate referral of the patient to the endocrinologist for a follow-up.

題號	題目
<b>1</b>	下列何種囊腫之病人最可能主訴吞嚥困難?
(A)	甲狀舌管囊腫(thyroglossal tract duct)
(B)	中顎囊腫(median palatal cyst)
(C)	外傷性骨囊腫(traumatic bone cyst)
(D)	史塔尼囊腫(Stafne bone cyst)
答案 (A)	出處：
題號	題目

<p>2</p>	<p>一位4歲小女孩經常出現吞嚥、發音及呼吸困難等臨床症狀，口腔檢查發現患者舌後部有一大結節腫塊阻塞呼吸道（圖A），圖B為頭頸部碘同位素核醫掃描之圖像，根據上述資訊您認為此腫塊最可能之診斷為下列何者？</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span>圖A</span> <span>圖B</span> </div>	
	(A)	軟骨性迷離瘤（cartilaginous choristoma）
	(B)	肥大之輪廓狀乳突（hyperplastic circumvallate papilla）
	(C)	甲狀腺舌管囊腫（thyroglossal duct cyst）
	(D)	舌甲狀腺（lingual thyroid）
<p>答案 (D)</p>	<p>出處：</p>	