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| 原文題目(出處)：  | Developmental Defect : Lingual Thyroid. Ann Maxillofac Surg 2015;5:104-7   |
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內文：

### **Introduction**

1. Lingual thyroid is a rare clinical entity of the oropharyngeal region caused by failure in descendance of thyroid gland to its normal position during embryogenesis.
2. The exact pathogenesis of this accessory thyroid tissue is not clearly understood.
3. The thyroid gland normally descends along the midline with growth of the neck but at times the gland may fail to migrate along the pharynx to its normal location in front of trachea over thyroid cartilage.
4. It sequesters within the tongue substance giving rise to an embryological defect with location at the base of the tongue, in a zone posterior to the circumvallate papillae.
5. Female predominance of occurrence is seen seven times higher than male counterpart. They may also occur in more than one ectopic site in the human body.
6. Literature shows that about 70% of patients with ectopic thyroid are hypothyroidism.

### **Case report**

#### **General data**

- C.C.: swelling of the posterior region of the tongue
- P.I.: This 40 y/o female felt that there had been a swelling over the posterior region of the tongue with a foreign body sensation in the throat and gradual progression of difficulty in swallowing for past 1 year. She also complained of slight difficulty with phonation about 1 month.

#### **Clinical finding**

- Extra-oral: Not reveal any obvious swelling or lymphadenopathy
- Intra-oral: Laryngoscopes examination showed a well-defined and circumscribed swelling on the posterior aspect of the tongue.
- Routine blood investigation and Thyroid function tests revealed :
  1. Thyroid stimulating hormone (TSH)↑
  2. Both T3 ↓and T4 ↓level,
  3. Confirmed that the patient was hypothyroidism

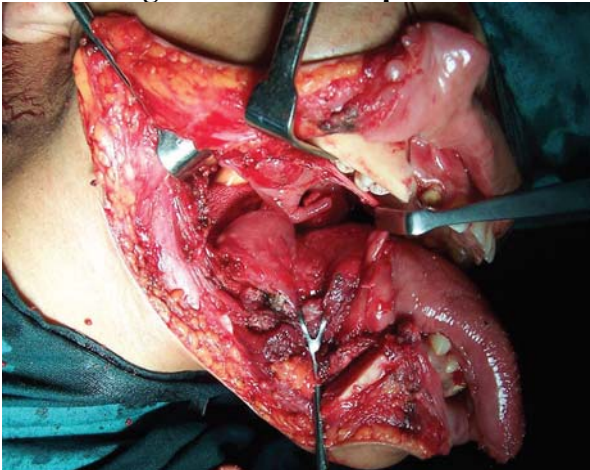
**Figure 1: Incision**



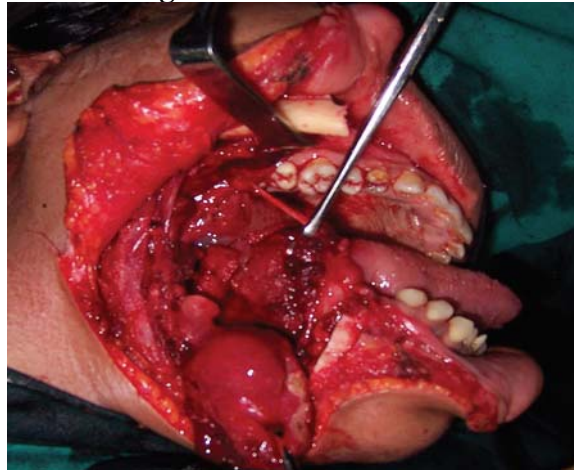
**Figure 2: Oblique bone cuts**



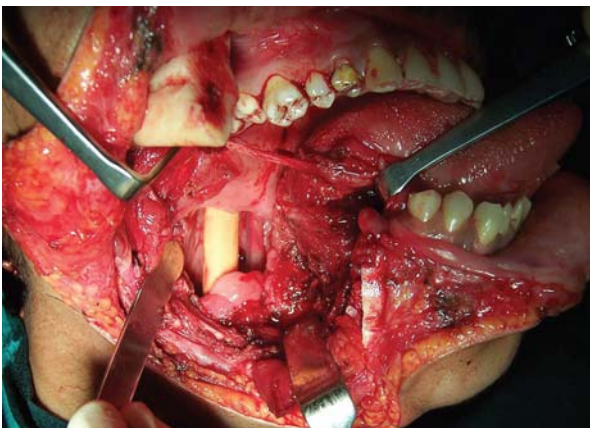
**Figure 3: Tumor exposed**



**Figure 4: Tumor excised**



**Figure 5: Surgical defect**



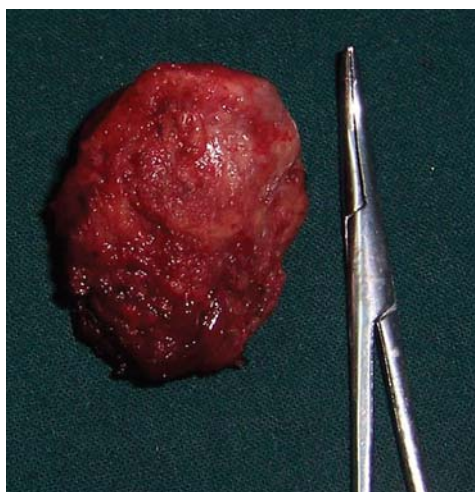
**Figure 6: Mandible repositioned**



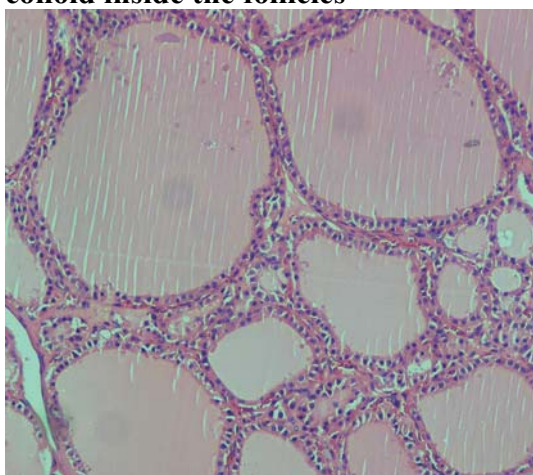
**Figure 7 : Final closure**



**Figure 8 :Excised specimen**



**Figure 9: Histopathology shows thyroid follicles lined by columnar cells with eosinophilic colloid inside the follicles**



#### **Discussion**

1. Hickman in 1869 was the first person to report about the presence of lingual ectopia of the thyroid gland. The reported incidence of this condition has been 1 in 100,000 cases which shows the rarity of this ectopic lesion.
2. The exact pathogenesis regarding the lingual thyroid is not known, but generally it has been accepted that the main cause lies in aberrant embryogenesis. Failure of descendance of thyroid gland from base of tongue to its normal position referred to as lingual thyroid and usually goes unnoticed until late adolescence.
3. Male to female ratio of occurrence is documented as 1:7. Lingual thyroid is mostly seen in females particularly during puberty, pregnancy, or menopause when the plasma TSH level increases in the body leading to hypertrophy of ectopic tissue
4. Clinical symptoms usually seen in patients range from dysphagia, dysphonia, snoring with a plumy voice, sore throat, occasional bleeding and upper airway obstruction
5. Thyroxine suppresses TSH stimulation and minimizes goitrous enlargement. Failure of medical therapy and complications such as ulceration, bleeding, cystic degeneration, or malignancy are indications for surgery

#### **Differential Diagnosis**

- vascular tumors
- telangiectatic granuloma



- teratoma
- benign/malignant processes in the posterior region of the tongue

**Conclusion**

Malignant transformation of lingual thyroid is rather a rare entity. Lingual thyroid may be the only thyroid producing tissue in the body as in our case. Hence, careful evaluation using adequate diagnostic techniques and appropriate treatment modalities become important as a mere misinterpretation from part of the surgeon may lead to lifelong misery and discomfort to the patient.

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| 題號        | 題目  |
| 1         | 本臨床 case :Lingual Thyroid 有高達 70%的機率會伴隨以下何種疾病？<br>(A) 甲狀腺功能低下 (hypothyroidism)<br>(B) 甲狀腺功能過旺 (hyperthyroidism)<br>(C) 副甲狀腺功能過旺 (hyperparathyroidism)<br>(D) 腦下垂體功能不足 (hypopituitarism) |
| 答案<br>(A) | 出處：Case Report-Developmental Defect: Lingual Thyroid<br>(Annals Maxillofac Surg 2015,5:104-7)   |
| 題號        | 題目  |
| 2         | 承上題，下列何者是 hypothyroidism 的臨床表現？<br>(A) TSH↑,T3 and T4↑<br>(B) TSH, T3, T4 濃度都沒有太大變化<br>(C) TSH↑,T3 and T4↓<br>(D) TSH↓,T3 and T4 濃度都沒有太大變化  |
| 答案<br>(C) | 出處：Case Report-Developmental Defect: Lingual Thyroid<br>(Annals Maxillofac Surg 2015,5:104-7)   |