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An Incidental Finding of a Lingual Thyroid Gland

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Abstract

Introduction

Thyroid ectopia is a rare entity resulting from abnormalities in gland embryogenesis during its passage from the tongue base to its normal orthotopic site.

Diagnosis

A 63 year old female presented with otalgia and facial pain to the outpatient department. The patient was diagnosed with temporomandibular joint (TMJ) dysfunction and during examination an incidental lingual thyroid gland was discovered.

Treatment

The patient was clinically and biochemically euthyroid on 75 micrograms of levothyroxine. No treatment was required as the patient was asymptomatic.

Discussion

Lingual thyroid is the most frequent location of ectopic thyroid tissue. Patients are frequently hypothyroid.

Introduction

Thyroid ectopia is defined as functioning thyroid tissue occurring anywhere other than its orthotopic site. Lingual thyroid is the most common ectopic location, but it can occur anywhere along the normal path of thyroid descent. Excessive migration may lead to a mediastinal or distant subdiaphragmatic position in very rare cases. A lingual thyroid may represent the only functional thyroid tissue and inadvertent excision may lead to profound hypothyroidism.

Case Report

A 63 year old female was referred to the ENT outpatients with right facial pain and otalgia. Her past medical history was significant for hypothyroid diagnosed at age 32, for which she was on Levothyroxine, and a hiatus hernia. She was an ex-smoker with a twenty-pack year history and consumed eight units of alcohol per week.

She had no dysphagia, no dysphonia and no weight loss. Examination of the neck was within normal limits. Flexible nasendoscopy revealed a smooth, well defined submucosal mass at the tongue base. She underwent a CT Neck to examine for the presence of a thyroid in the normal position. This showed an avidly enhancing soft tissue mass in the base of tongue in keeping with an ectopic thyroid. There was no thyroid gland present in its usual anatomic location.

Figure 1: Enhancing mass seen at tongue base with absent thyroid in the usual pretracheal position.

Figure 2: Clinical photograph taken during flexible nasoendoscopy which showed a submucosal mass at the tongue base.

Discussion

Ectopic thyroid is a rare entity derived from abnormalities in migration of the thyroid gland along the normal path of descent. The entire gland fails to descend to the usual position in the neck and if descent is completely arrested a lingual thyroid results. Its prevalence is about 1 per 100,000 – 300,000 people and it is more common in females [1].

The thyroid gland forms at a midline depression at the border of the anterior and posterior tongue known as the foramen caecum. A ventral diverticulum of the foramen caecum forms at four weeks gestation. This descends in the midline of the neck as the thyroglossal tract to reach the pretracheal position of the normal thyroid gland at about week seven [2].

Lingual thyroid is the most frequent location of ectopic thyroid tissue, accounting for about 90% of cases [3]. Hormone production with lingual thyroid is usually insufficient and thus patients are frequently hypothyroid [1]. If hypothyroidism develops the ectopic thyroid may enlarge due to TSH stimulation. Patients may present with symptoms related to the growth of the lingual thyroid such as dysphagia, dysphonia, sense of a foreign body and oral haemorrhage [4, 5]. More frequently lingual thyroid is an incidental finding during investigation for non-thyroid related symptoms.

The differential diagnosis depends on the location. It is necessary to distinguish between ectopic thyroid and metastatic deposits as well as benign or malignant processes that may arise in the area of presentation. Carcinoma arising in a lingual thyroid is very rare with less than 30 cases reported in the literature [6]. There is no consensus in the literature regarding the treatment for lingual thyroid due to its rarity. Thyroid function testing is necessary as part of the work up and replacement therapy may successfully treat patients with mild symptoms [5].

Declaration of Conflicts of Interest:
None to declare.

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