A 71-year-old female developed several episodes of intermittent bleeding from the mouth with an underlying history of foreign body sensation in the throat for many years. Oral examination revealed a significant midline mass, located at the base of the tongue (Fig. 1). There was evidence of recent bleed from the surface. Rigid laryngoscopic findings revealed the mass had a smooth surface, pushing the soft palate upward and obstructing the view of laryngeal inlet.

MRI of the neck showed the presence of a well delineated midline soft tissue mass at the base of the tongue accurately measuring 4.96 cm x 5.80 cm x 4.35 cm (AP X W X CC) (Fig. 2). Images of the lower neck revealed an absence of the normal thyroid tissue in its expected location. Her thyroid function tests were normal. The diagnosis of lingual thyroid was established. Thyroid hormone suppression therapy (THST) with L-Thyroxine 100 mcg daily was initiated. After 5 days, the bleeding stopped and reassessment after one month showed the lingual thyroid had shrunk in size.

Discussion

Thyroid gland originates embryologically from the foramen caecum, at the tongue base. Due to failure to descend, lingual thyroid may be found anywhere between the circumvallate papillae and the epiglottis. It is the most common benign neoplasm at the base of the tongue despite being a rare clinical entity. The pathogenesis of the lingual thyroid remains unclear, although it has been postulated that maternal antithyroid immunoglobulins may cause arrest of gland descent and predispose to poor gland function later in life. The lingual thyroid tends to fail in late childhood or adulthood causing hypothyroidism. Besides that, patients may present with symptoms related to oropharyngeal obstruction including dysphagia, with or without decrement of oral intake, dysphonia, dyspnoea and haemorrhage. Stridor may also present at any time after birth.

The definitive treatment of lingual thyroid remains controversial. When obstructive symptoms are absent and the patient is euthyroid, no treatment may be required. Patients will be counselled and regular follow-up visits are recommended. The progression especially of the size of the mass should be closely monitored and documented including by radiological assessment including computed tomography (CT) and magnetic resonance imaging (MRI).

The use of suppressive therapy with exogenous thyroid hormone is the mainstay of medical management. The goal of the therapy is to suppress thyroid stimulating hormone (TSH) and thereby remove the stimulus for gland enlargement. This approach is mandatory for symptomatic patients and those asymptomatic patients with elevated TSH levels. It was shown that although the effect was slow, significant reduction of the size of the mass was observed.
THST is recommended to patients who are unfit for surgery or who refuse any invasive intervention, such as in this case. Surgery or radio-iodine ablative is considered the main treatment option in symptomatic patients who fail to be controlled by medical treatment, and for patients with severe obstructive symptoms or bleeding. However, as the lingual thyroid can be the only functioning thyroid tissue in a patient, surgical removal would lead to hypothyroidism and the patient may require lifelong thyroxine replacement.

REFERENCES