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Ectopic Sublingual Thyroid – A case report

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Abstract: **Introduction: Ectopic thyroid is any thyroid tissue not located in the usual position. The most common place is lingual and sublingual region. The prevalence of ectopic thyroid gland in healthy individuals is 1/100000 but it is higher in patients with thyroid diseases. They are usually benign. The risk for malignancy is less than 1%. We present a case of a patient with sublingual thyroid. Case Description: The patient H.L. female, 63 years old from Tirana, Albania first came in contact with the Endocrinology specialist with complains of fatigue and difficulty of swallowing food. She referred to surgery of the thyroid gland (nodulectomy) 15 years ago. Since then, she had not required any medication because her laboratory analyses were always inside the normal range. Hormonal findings were normal. A neck ultrasound was performed and both lobes of the gland of the thyroid were in normal position, without evidence of nodules. In the superior part of the neck, apart from the thyroid, a vegetation was seen. So, a CT (head and neck) was done and the multinodular structure in the sublingual region of the head looked like a thyroid lobe. The patient was referred to the Nuclear Imaging Department where a Thyroid Scintigraphy with Tc99m was performed. The sublingual vegetation had a higher uptake than the thyroid itself. The patient underwent surgery and the biopsy resulted in thyroid tissue, without evidence of atypical cellular proliferation. She continued with the follow ups and no other interventions or treatment were necessaire.**

Conclusion: **Ectopic thyroid gland is a relatively unusual development of the thyroid tissue. In most of the cases they are asymptomatic and benign. In order to evaluate them, a laboratory and imaging exploration should be conducted. If they become symptomatic or with tendency of malignancy, surgery should be recommended.**

1. INTRODUCTION

Ectopic thyroid is any thyroid tissue not located in the usual position. The most common place is lingual and sublingual region.[1] The prevalence of ectopic thyroid gland in healthy individuals is 1/100000 but it is higher in patients with thyroid diseases. They are usually benign. The risk for malignancy is less than 1%.[2]Usually they are asymptomatic and are found incidentally.We present a case of a patient with sublingual thyroid.

2. CASE DESCRIPTION

The patient H.L. female, 63 years old from Tirana, Albania first came in contact with the Endocrinology specialist with complains of fatigue and difficulty of swallowing food. She referred to surgery of the thyroid gland (nodulectomy in the left lobe of the thyroid) 15 years ago. During this time, she had controlled regularly only thyroid function with TSH (thyroid stimulating hormone) and had not contacted a specialist. She had not required any medication because her laboratory analyses were always inside the normal range. She had no familiar history for diseases of the thyroid gland and was being treated only for Arterial Hypertension.

She had no clinical signs or symptoms of hyperthyroid or hypothyroid disease. During the physical examination, no additional problems were observed. The patient was proposed blood test, hormonal thyroid analyses (TSH, free Thyroxine [fT4], free Iodothyronine [fT3], antibodies of Peroxidase and Thyroglobulin) and a neck ultrasound.

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Hormonal findings were as shown in Table 1.

Table1. Hormonal Values

Hormones	Result	Normal Range
TSH	2.43 U/mL	0.35 – 4.5
fT4	11.85 pmol/L	9 – 19
fT3	3.62 pmol/L	2.6 – 5.9

She tested negative for antibodies of Peroxidase and Thyroglobulin. Other blood test results were within normal range.

A neck ultrasound was performed and both lobes of the gland of the thyroid were in normal position, without evidence of nodules. Both lobes had heterogenous structure. (See Figure 1) In the superior part of the neck, apart from the thyroid, vegetation was seen, isogenous in structure, with dimension 3.5 cm. as seen in Figure 2.

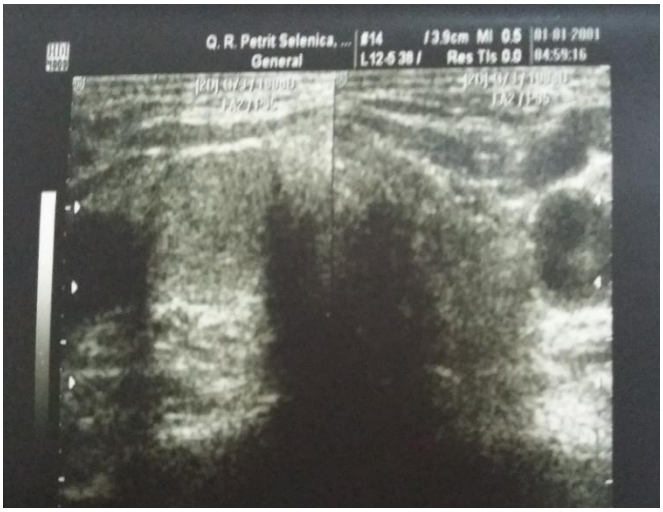

Figure 1. Thyroid Ultrasound

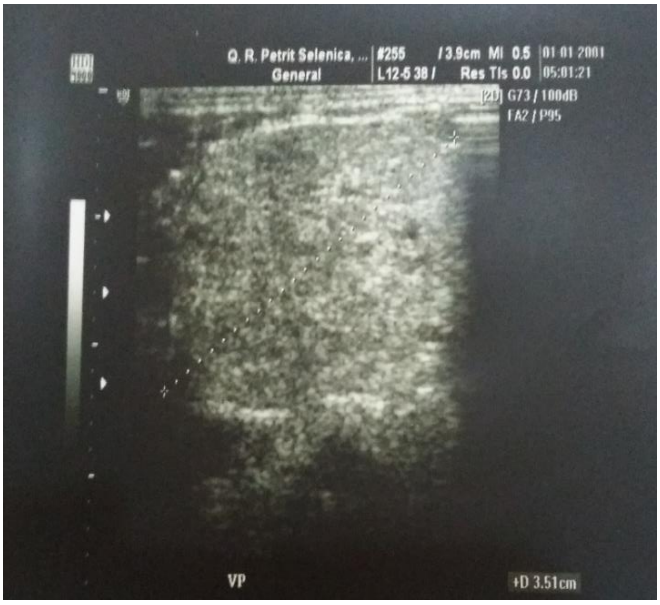

Figure 2. Vegetation in sublingual region as seen in Ultrasound

Seeing this result, a CT (head and neck) was done and the nodule in the sublingual region of the head appeared to have a similar structure as a thyroid lobe. The patient was referred to the Nuclear Imaging Department where a Thyroid Scintigraphy with Tc99m was performed whether to determine if it was functionally active or not. The sublingual vegetation had a higher uptake than the thyroid itself. (Figure 3)

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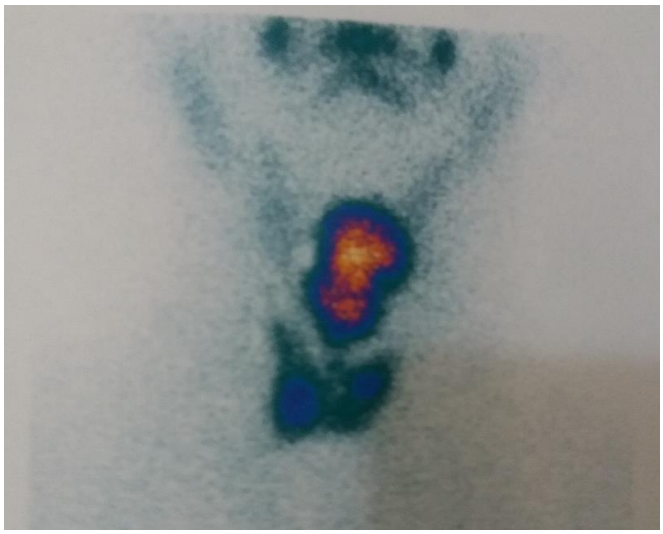

Figure 3. Thyroid Scintigraphy

The patient underwent surgery and the biopsy resulted in thyroid tissue, without evidence of atypical cellular proliferation. She continued with the follow ups and no other interventions or treatment were necessaire.

3. DISCUSSION

Ectopic thyroid gland is the most frequent form of thyroid dysgenesis.[4] Normally the thyroid gland develops from the primitive pharynx and the neural crest as an endodermal diverticulum between the pharyngeal pouches. Later this diverticulum descends toward the anterior part of the neck, below the hyoid bone. Problems during this process can result in residual thyroid tissue. This, probably, makes lingual and sublingual region the most frequent sites for ectopic thyroid, although diverse sites have been found such as oesophagus, heart, pancreas, skin etc.[5,6,7,8] The disease is more frequent in females than males with a ratio 4:1.[9]

Ectopic thyroid gland is a rare finding of usually benign thyroid disease. This was confirmed in our case too. In a study, less than 4% of the cases were found to be magliancy, while more than 96% were adenomas.[10] In most cases the ectopic nodule is non secreting, resulting in unchangeable hormonal levels. Non-functional thyroid tissue limits the early diagnose. The finding can happen incidentally or if the nodule grows and invades the space within. In the case we present, the patient had no clinical signs of hormonal disbalance but were the local signs of compression that alerted her.

Depending on the position, dimension and macroscopic characteristics, different imaging tests can be helpful. Lesions with calcifications are easily visible in X-ray imaging. Whether small, radiolucent nodules are better seen in ultrasound or MRI.[11]

In case ectopic thyroid masses are small, non invasive and asymptomatic, they can be routinely monitored with imaging and hormonal tests. In any other cases, treatment should be considered. The treatment goes from hormonal therapy to ablative dose of Radioactive Iodine to lastly, surgery. Hormonal therapy can be used in order to diminish the dimensions of the nodules. It is not always effective because often the tissue appears resistant to hormonal stimulation. In most cases, surgery is chosen.[12] Not only because of the potential risk of neoplastic transformation but for the compressive effects this gland can have too.

Our case was recommended surgery because of her complaints and the position of the ectopic gland. In our experience, surgery remains the better option for long lasting treatment.

4. CONCLUSION

Ectopic thyroid gland is a relatively unusual development of the thyroid tissue. In most of the cases they are asymptomatic and benign. In order to evaluate them, a laboratory and imaging exploration should be conducted. Given the silent evolution, imaging ist the best way to a proper diagnose. If they become symptomatic or with tendency of malignancy, surgery should be recommended.

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