

Thyroglossal Tract Cyst in The Subject Elderly: About Two Cases

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Abstract:

SUMMARY:

Introduction: Thyroglossal tract cysts (TTCs) are the most common congenital cysts of the neck. Around 50% of cases are detected in the first 2 decades of life, but can also appear later in adulthood. Clinical cases: A 62-year-old patient with no specific pathological history had a cervical mass that had been evolving for more than 30 years. Clinical examination revealed a mass in the left submandibular region, measuring 3.5cm in long axis, firm in consistency, regular in contour, painless, immobile on swallowing, with healthy surrounding skin and no signs of compression. On CT scan, the appearance was suggestive of a left submandibular tumefaction, and a 72-year-old patient with no particular pathological history presented with a cervical mass that had been evolving for over 5 years, with no signs of compression of adjacent organs. Clinical examination revealed a mass in the anterior cervical region, at the level of the hyoid bone, measuring 2.2cm long, firm in consistency, regular in contour, painless, immobile on swallowing, with healthy skin and no signs of compression. On CT scan, the appearance was suggestive of a left median and paramedian cystic formation, embedded in the homolateral infra-hyoid muscle, abutting the thyroid cartilage without lysis opposite, and fusing at the level of the HTE lodge corresponding to a cyst of the sub-hyoid thyroglossal tract.

Exploratory cervicotomy in both patients revealed a superficial cystic mass, adherent to the body of the hyoid bone, raising strong suspicion of a thyroglossal tract cyst. Surgical excision was performed using the Sistrunk technique, removing the cyst en bloc with the body of the hyoid bone. The surgical specimen was sent for histological examination, which confirmed the diagnosis of KTT.

Conclusion: Thyroglossal tract cysts are common in children, but rare in adults. The key to its management is to know how to recognize it when faced with a cervical mass.

Key words: Congenital pathology, thyroglossus

INTRODUCTION

Thyroglossal tract cysts are the most common congenital neck cysts, accounting for 70% of cases. Around 50% of cases are detected in the first 2 decades of life, but around 15% of cases are diagnosed after the age of 50. Both sexes are equally affected. Most thyroglossal duct cysts are slow-growing, with an average size of 2-4 cm, but can enlarge rapidly after an upper respiratory tract infection [1]. We present a rare case of KTT occurring in an elderly subject.

Materials and methods

Case 1: A 62-year-old patient with no specific pathological history presented with a cervical mass that had been evolving for over 30 years, with no signs of compression of adjacent organs. Clinical examination revealed a mass in the left submandibular region, measuring 3.5cm in long axis, firm in consistency, regular in contour, painless, immobile on swallowing, with healthy skin opposite and no signs of compression. On CT scan, the appearance was suggestive of a submandibular tumefaction. On the axial (fig 1) and coronal (fig 2) sections of the cervical CT scan, we visualized a well-limited, oval, hypodense formation of liquid density, slightly enhanced after injection of contrast medium, measuring 30 *35*34mm, centered on the myelohyoid muscle, lateralized to the left, extending into the submandibular fossa and, topographically, anteriorly and medially in contact with the genioglossus muscle, and inferiorly in contact with the body of the hyoid bone. A cervicotomy performed under general anaesthesia revealed a superficial cystic mass adherent to the body of the hyoid bone, raising strong suspicion of a cyst of the thyroglossal tract. The surgical specimen was sent for histopathological study.



Fig 1: Axial sections



Fig 2: Coronal sections

Case 2: A 72-year-old patient with no specific pathological history presented with a cervical mass that had been evolving for over 5 years, with no signs of compression of adjacent organs. Clinical examination revealed a mass in the anterior cervical region at the level of the hyoid bone, measuring 2.2cm in long axis, firm in consistency, regular in contour, painless, immobile on swallowing, with healthy surrounding skin and no signs of compression. On CT scan, the appearance was suggestive of a

left median and paramedian cystic formation, embedded in the homolateral infra-hyoid muscle, abutting the thyroid cartilage without lysis opposite, and fusing at the level of the HTE lodge corresponding to a cyst of the sub-hyoid thyroglossal tract.



Fig 3: Axial sections

A cervicotomy performed under general anaesthesia revealed a superficial cystic mass adherent to the body of the hyoid bone, raising strong suspicion of a cyst of the thyroglossal tract. The surgical specimen was sent for histopathological study.

RESULTS

Favourable evolution without recurrence over 1 year. Histological study of the surgical specimen confirmed the diagnosis of thyroglossal tract cyst.

DISCUSSION

Neck cysts are congenital malformations resulting from an anomaly during embryonic development. They are a frequent cause of consultation in paediatrics (12-25% of cervical swelling cases), but can also occur in adults. Around 7% of adults have a thyroglossal tract cyst [2]. KTT is the result of an embryological migration anomaly of the thyroid gland. The thyroglossal tract corresponds to the area where the thyroid migrates through the base of the tongue to the small horns of the hyoid bone and then to the anterior cervical region [3]. Clinically, KTTs present as median cervical masses, in 50% of cases opposite the hyoid bone, in 25% of cases above the hyoid bone, and in the remaining 25% of cases below the hyoid bone, in a median or paramedian position. Most often, it's a painless mass that develops progressively in a child or young adult. It may be discovered during infectious episodes. Exceptionally, it may be associated with thyroid carcinoma [4].

An imaging study is essential prior to surgery. Ultrasound will confirm the cystic nature of the lesion, but above all will confirm the existence of a thyroid gland in a normal position. Indeed, if the cyst were the only ectopic remnant of thyroid tissue, its removal would lead to post-operative hypothyroidism [3]. CT scan reveals a well-individualized cystic mass, sometimes with intracystic septa. Injection of contrast may reveal mild peripheral enhancement, which is more pronounced in cases of infection. If there is an associated thyroid carcinoma, it may present as an eccentric mass with calcifications within it [4].

The surgical treatment of thyroglossal tracts is the Sistrunk technique, based on the embryological work of Wenglowski, which advocates resection of the body of the hyoid bone. The cyst generally adheres to the body of the hyoid bone, and is resected in one piece with the cyst, removing the body after freeing it from its upper and lower muscular attachments. The bone is cut between the 2 small horns previously

freed, as well as its deep face. The tract is very rarely distinguishable at the base of the tongue. Dissection is made down to the lingual mucosa. The tract is ligated before sectioning [5].

Pathologically, KTT is defined by linear wall epithelium, sometimes squamous, sometimes glandular, inconsistently associated with normal thyroid follicles. Malignant degeneration of the residual tract accounts for 1% of cysts operated on. Diagnosis is most often made postoperatively after anatomopathological study of the surgical specimen [6].

Recurrence is the most frequent complication, occurring in 1.5% to 10% of cases on average in the various series. This recurrence rate is higher in hospitalized patients operated on during the inflammatory phase [5].

CONCLUSION

Thyroglossal tract cysts are common in children, but rare in adults. The key to its management is to know how to recognize it when faced with a cervical mass, and to ensure that differential diagnoses have been eliminated, notably adenopathies of cancerous origin. Treatment consists of complete surgical excision, which is the only way to guarantee the absence of recurrence.

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