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Abstract

Introduction: Thyroglossal Duct Cysts (TDC) are the most common congenital cervical cysts. About 50% of cases are detected during the first 2 decades, but can also appear later in adulthood.

Clinical Case: We report the case of a 62 year old male patient with no particular medical history, who presented a cervical mass evolving over 30 years.

Her clinical examination revealed a mass in the left submandibular region measuring 3.5 cm on its longest axis, firm, with regular limits, painless, not moving when swallowing with a healthy-looking skin and no signs of compression. The CT scan showed a mass under the left mandible.

The exploratory cervicotomy found a superficial cystic mass, adherent to the body of the hyoid bone, strongly suspecting the possibility of a thyroglossal duct cyst. Surgical excision was performed using the Sistrunk technique, removing the cyst in one piece with the body of the hyoid bone. The surgical specimen was sent for histological examination which confirmed the diagnosis of TDC.

Conclusion: The thyroglossal duct cyst is a frequent pathology in children but remains rare in adults. The challenge is to know how to think about it in front of an adult patient presenting with a cervical mass.

Keywords: Congenital pathology, thyroglossal, cervical mass.

Introduction

Thyroglossal duct cysts are the most common congenital neck cysts, accounting for 70% of cases. About 50% of cases are detected in the first 2 decades, but about 15% of cases are diagnosed after the age of 50. Both sexes are equally affected. Most thyroglossal duct cysts are slow growing, averaging between 2 and 4 cm in the diameter, but can grow rapidly after an upper respiratory tract infection [1].

We present a rare case of TDC occurring in an elderly subject.

Clinical Case

It is a 62-year-old man with no particular medical history who presented with a cervical mass evolving for 30 years without signs of compression of the adjacent cervical organs. The clinical examination showed a mass in the left submandibular region measuring 3.5 cm in its long axis. The mass had a firm consistency, regular limits, painless, immobile on swallowing, the skin was looking healthy and there were no signs of compression. On CT scan, the appearance is suggestive of a submandibular cyst.

On the axial (Figure 1) and coronal (Figure 2) sections of the cervical CT scan, we visualized a well-limited, oval, hypodense with a liquid density, slightly enhanced after injection of contrast product, measuring 30 * 35 * 34 mm,

centered on the myelo-hyoid muscle, lateralized to the left, extending to the submandibular fossa and topographically growing to the front and inside in contact with the genio-glossus muscle, and arriving below to the body of the hyoid bone.

A cervicotomy performed under general anesthesia found a superficial cystic mass adherent to the body of the hyoid bone, strongly suspecting a thyroglossal duct cyst. The surgical specimen was sent for histopathological study.

Figure 1: An axial image of cervical CT scan showing the thyroglossal cyst

Figure 2: A coronal image of cervical CT scan showing the thyroglossal cyst under the left part of the mandible

Discussion

Neck cysts are congenital malformations resulting from an abnormality during embryonic development. It is a frequent reason for consultation in pediatrics (12 to 25% of the causes of cervical swelling), but can also be found in adults. About 7% of adults have a thyroglossal duct cyst [2]. TDC is the result of an abnormal embryological migration of the thyroid.

The thyroglossal tract corresponds to the area where the thyroid migrates through the base of the tongue to the lesser horns of the hyoid bone and then to the anterior cervical region [3]. TDCs present clinically as median cervical masses located in 50% of cases in opposite to the hyoid bone, in 25% of cases above the hyoid bone and in the remaining 25% of cases they are located under the hyoid bone, in a median or paramedian position. It is most often a painless lump that progresses gradually in a child or young adult. It can appear during infectious episodes. Exceptionally, it can be associated with thyroid carcinoma [4].

An imaging assessment is essential before the operation. Ultrasound will confirm the cystic nature of the lesion, but above all will ensure the existence of a thyroid gland in a normal position. Indeed, if the cyst was the only ectopic remnant of thyroid tissue, its removal would lead to postoperative hypothyroidism [3]. The CT scan finds a well individualized cystic mass, sometimes with intracystic septa. Injection of contrast product may reveal a slight peripheral enhancement, which is more pronounced in the presence of infection. If there is an associated thyroid carcinoma, it may present as an eccentric mass with calcifications within it [4].

The gold standard of thyroglossal tract surgery is the Sistrunk technique which is based on the embryological work of Wenglowski and which advocates the resection of the body of the hyoid bone. The cyst usually adheres to the lower part of the hyoid bone; it is resected in one piece with the cyst, removing the body after releasing it from its upper and lower muscle attachments. The bone is cut between the 2 small horns previously cleared, as well as its deep side. The tract is very rarely individualizable at the level of the base of the tongue. The dissection is made down to the level of the lingual mucosa. The tract is ligated before being sectioned [5].

The TDC is defined from an anatomopathological point of view by a linear epithelium of the wall sometimes squamous,

sometimes glandular, and inconstantly associated with normal thyroid follicles. Malignant degeneration of tract residues represents 1% of operated cysts. The diagnosis is most often made postoperatively after anatomopathological study of the surgical specimen [6].

Recurrence is the most common complication: it occurs in 1.5% to 10% of cases on average in the different series of literature. This recurrence rate increases in hospitalized patients operated during the inflammatory phase [5].

Conclusion

The thyroglossal duct cyst is a frequent pathology in children, but remains rare in adults. The challenge is to think about it in front of a cervical mass.

Especially in an adult patient, and to ensure that the differential diagnoses have been eliminated, in particular lymphadenopathy of cancerous origin. The treatment consists of a complete surgical excision which, alone, guarantees the absence of recurrence.

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