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Type I Branchial Cyst of the Sedunda Cleft Uncommon presentation: Case Report

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Abstract **Case Report**

***Introduction*:** The cyst branchial is a rare tumor as well known as cysts lymphoepithelial, are dysembryological rare and benign second cleft tumors. Tumors cystic that HE develop in the part anterolateral of the neck; represent he 2% of the tumors laterocervical of the neck [1]. ***Clinical Case*:** We present he clinical case of a patient male of 37 years, does not report personal pathological history, with a clinical picture of approximately 8 months of evolution approximately characterized by a laterocervical tumor right with progressive growth in size, not accompanied by any other symptoms. Upon examination Physical: A mobile, fluctuating tumor of approximately 5 cm in diameter is observed in the right cervical region III, with no changes in skin color. No symptoms of a sinus or fistulous tract are observed. ***Discussion*:** The cyst branchial is a rare tumor and benign second cleft tumors. Tumors cystic that HE develop in the part anterolateral of the neck, represent he 2% of the tumors laterocervical of the neck, proper physical examination determines its prompt diagnosis and surgical treatment [6]. ***Conclusion*:** In conclusion, despite their low incidence, third branchial cleft cysts should be included in the differential diagnosis of laterocervical tumors. An adequate history and physical examination, complemented by the indicated imaging tests, will allow establishing a presumptive diagnosis that should be confirmed histologically after surgical resection.

Keywords: Branchial Cyst, Second Cleft, Tonsillar Cyst.

INTRODUCTION

The cyst branchial is a rare tumor as well known as cysts lymphoepithelial, are dysembryological rare and benign second cleft tumors. Tumors cystic that HE develop in the part anterolateral of the neck; represent he 2% of the tumors laterocervical of the neck [1].

Various names have been used for the branchial cysts: cysts tonsils, tumor of the cleft branchial, cyst lymphoepithelial side and nodes lymphatics cystic benign. They are benign cystic tumors due to malformations congenital resulting of the development embryonic abnormal of the region laterocervical [2].

Those that present an external opening do so along the anterior border of the SCM, under its upper third. If they present an internal opening, it is located in the tonsillar fossa. Unlike the anomalies of the first cleft, the tract is superior to the hyoid. The course they follow is: starting at the skin, the tract penetrates the platysma muscle, then sinks deep to the SCM. It passes lateral to the hypoglossal and glossopharyngeal nerves, and enters the pharynx superior to these nerves. The tract extends between the internal and external carotid (which are derived from the third arch), and ends at the middle constrictor or in the region of the tonsillar fossa [3].

CLINICAL CASE

We present he clinical case of a patient male of 37 years, does not report personal pathological history, with a clinical picture of approximately 8 months of evolution approximately characterized by a laterocervical tumor right with progressive growth in size, not accompanied by any other symptoms. Upon

examination Physical: A mobile fluctuating tumor of approximately 5 cm in diameter is observed in the right cervical region III, with no changes in skin color. No symptoms of a sinus or fistulous tract are observed.

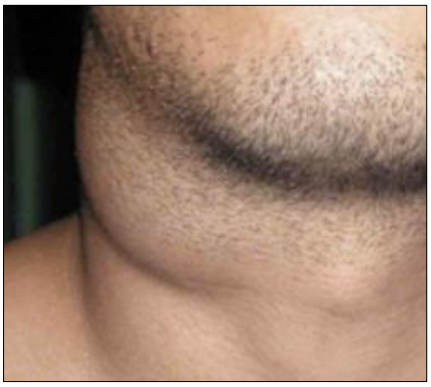

Figure 1: Right laterocervical tumor in region III

RESULTS

The Cervical CT scan showed a well-defined cystic lesion. Defined as exerting a mass effect on the jugular-carotid axis.

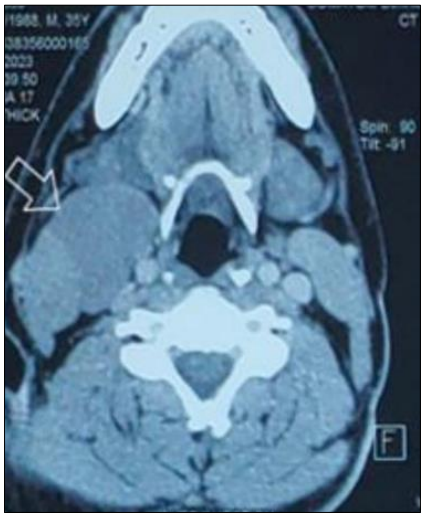

Figure 2: Computed Tomography Neck: court axial A cystic soft tissue density occupation is observed good limited that exercises a effect of mass about the jugular-carotid axis.

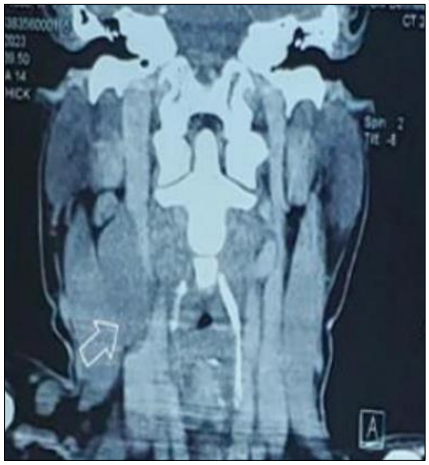

Figure 3: Computed Tomography Neck: court coronal A cystic soft tissue density occupation is observed good limited that exercises a effect of mass about the jugular-carotid axis.

Right lateral cervicotomy with complete resection was performed of the right laterocervical tumor, The dissection of the tumor HE performed by plans respecting the vascular axis of the neck. During surgery, no noticed none tract either cord that will connect the cyst with the pharynx.

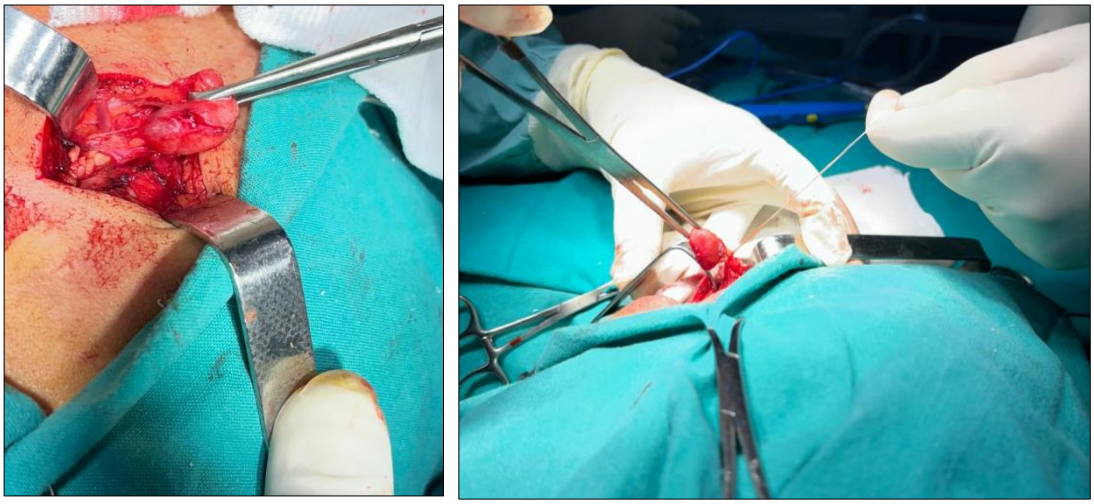

Figure 4: Cervicotomy right laterocervical

He follow-up postoperative satisfactory good healing of the surgical wound.

The pathology results reported the diagnosis of lymphoepithelial cyst. The patient's condition evolved favorably and the previous symptoms disappeared.

DISCUSSION

The cysts and fistulas congenital of the face and the neck are malformations of origin embryological bit frequent and bit known, which is why it was decided to publish the case report. The branchial cysts, tonsilloliths either lymphoepithelial, either cysts of the breast cervical, are tumors dysembryological cystic that correspond to defects of resorption of the second bow branchial [1-3], and HE develop in the part anterolateral of the neck. The frequency of cysts tonsils in relationship with defects of the second bow branchial oscillates between the 6.1% and the 85.2% [2].

The age of discovery is elderly that the of others anomalies congenital, with two peaks of frequency, in children under 5 years and between the second and third decade, without predominance of gender. Clinically, a cyst of the breast cervical appears as an oval tumor, renitent, mobile below of the plans superficial skin generally located near of the fork carotid in a position subhyoid [4, 5].

Although are injuries are congenital, they usually identify between the second and quarter decades of the life, when increases of size either HE comes back symptomatic due to the infection either the extension of the tumor [4]. In this report, he Laterocervical branchial cyst presented in the third decade of life.

Those that present an external opening do so along the anterior border of the SCM, under its upper third. If they present an internal opening, it is located in the tonsillar fossa. Unlike the anomalies of the first cleft, the tract is superior to the hyoid. The course they follow is: starting at the skin, the tract penetrates the platysma muscle, then sinks deep to the SCM. It passes lateral to the hypoglossal and glossopharyngeal nerves, and enters the pharynx superior to these nerves. The tract extends between the internal and external carotid (which are derived from the third arch), and ends at the middle constrictor or in the region of the tonsillar fossa [5], and in occasions depending of the size and the anatomical extension of the tumor may appear symptoms as dysphagia, dysphonia, dyspnoea and stridor.

These cysts were classifieds in 1929 by BAILEY in four subtypes according to their location [6]:

Classification	Location and relationship
Type I	They occur at the anterior border of the SCM, deep to the platysma.
Type II	It is the most common. It is in contact with the large vessels.
Type III	It is located between the external and internal carotid arteries, superior to the IX and XII cranial nerves, inferior to the stylohyoid ligament.
Type IV	It is medial to the large vessels. It is located at the level of the tonsillar fossa. It is very rare.

He diagnosis of cyst of cleft branchial HE performs mainly by medical clinical history and exclusion of the differential diagnosis. We can recall all the Causes of chronic cervical tumors in adults, including

a Lymphadenopathy that may reveal cancer of the aerodigestive tract superior, lymphoma cervical, adenitis tuberculous in our context, cryptic metastases of tonsillar carcinoma. What it does essential the indication of a exam anatomopathological [7].

At the radiological level, ultrasound remains the first-line radiological examination to request because it is a non-invasive examination. Invasive, inexpensive, easy to perform and innocuous. However, when a mass is voluminous, the use of tomography computed and magnetic resonance imaging (RM), is necessary for study better the extension of the tumor. In the tomography computerized, the cysts generally appear well circumscribed, evenly hypodense with walls thin, which may increase after a superinfection of the cyst. In how much to the resonance magnetic, offers a representation better and more precise of the cyst. Hypo to isointense in T1 sequences and hyperintense in sequences T2. The TC either the RM also are useful for differentiate the injury of others tumors parapharyngeal, hemangioma, cyst dermoid, lymphangioma either lymphadenopathy [8].

In case of presence of fistula, the fistulography is necessary and allows visualize clearly the location and extension of the journey fistulous [9]. Diagnosis of tonsillar cysts it is confirmed by histology. Needle aspiration biopsy fine for cytological criteria can be an important complement to the clinical diagnosis in the preoperative period. The criteria for the Fine needle aspiration cytological diagnosis of cysts gill are:

- Thick, yellow liquid
- Anuclear cells keratinizing
- Squamous epithelial cells of maturity variable
- Background of waste amorphous.

Histologically, the tonsil cyst is lined by a epithelium that is usually squamous, but can also be a epithelium columnar ciliated of origin ectodermal. The presence of tissue lymphoid with either without the centers germinal in the tissue connective subepithelial are the characteristics morphological further Featured [9].

Cervical sinus cysts can cause discomfort and bradycardia when located at the level of the carotid bulb, for improve the symptoms of the patient HE can propose the puncture of the cyst. Malignant intracystic degeneration remains exceptional. However, the infection remains the complication further frequent of this malformation [11].

Therapeutic management is based on surgery, and should be performed as early as possible to avoid complications. This treatment surgical consists in a resection surgical complete, through a cervicotomy cross low anesthesia general. Approximately he 80% of the breasts branchial HE will open to the skin and less will open to the pharynx. The fistulous tract can identify through catheterization with blue of methylene. There is controversy over the need for tonsillectomy. If the tract ends in the tonsillar fossa, resection is usually necessary to locate the fistula opening, but if the tract ends before reaching the tonsillar fossa, this is not necessary [10].

The evolution postoperative is in general good, it reported some complications as bleeding, surgical site infection, nerve damage involving the nerve accessory spinal cord, the mandibular branch of the facial nerve, the nerve handset elderly, the nerve halibut and he nerve laryngeal superior [9].

The rates of recurrence after of the surgery primary HE estimate between the 3% and the 4%. This is treatment s alternatives with sclerotherapy. Still No they have been tested [12].

CONCLUSION

In conclusion, despite their low incidence, third branchial cleft cysts should be included in the differential diagnosis of laterocervical tumors. An adequate history and physical examination, complemented by the indicated imaging tests, will allow establishing a presumptive diagnosis that should be confirmed histologically after surgical resection.

Conflicts of Interest: The authors declare that there is no conflict of interest regarding the publication of this paper.

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