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Giant Pilomatricoma in the Parotid Region – A Case Report

Giant Pilomatricoma in the Parotid Region – A Case Report

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Summary

Pilomatricomas are benign tumors of pilosebaceous origin that measure on average less than one centimeter in diameter. Our case presents a 20-year-old man with an expansive nodule in the topography of the right parotid gland, growing for 1 year, with a clinical picture initially suggestive of parotid malignancy. After excisional biopsy of the lesion, the anatomopathological analysis revealed it to be a pilomatricoma measuring 5.0 x 3.5 x 2.5 centimeters and weighing 25 grams.
Giant pilomatricomas are rare, but should be considered in the differential diagnosis of rigid, expansive nodules in the parotid region.
Keywords: Pilomatricoma, Giant Pilomatricoma, Skin Neoplasm

Abstract

Pilomatricomas are benign tumors of pilosebaceous origin that typically measure less than one centimeter in diameter. Our case describes a 20-year-old man presenting with an expansive nodule in the right parotid region, growing over the course of one year, with an initial clinical picture suggestive of malignant parotid neoplasm. After excisional biopsy of the lesion, histopathological analysis revealed a pilomatricoma measuring 5.0 × 3.5 × 2.5 centimeters and weighing 25 grams. Giant pilomatricomas are rare but should be considered in the differential diagnosis of firm, expansive nodules in the parotid region.

Keywords: Pilomatricoma, Giant Pilomatricoma, Skin Neoplasm

1. Introduction

Pilomatricomas are rare benign tumors that develop from the cells of the hair follicle matrix. Its clinical manifestation commonly occurs in the form of dermal nodules. Firm, well-circumscribed, asymptomatic, slow-growing lesions, with or without cyanosis and ulceration. epidermal(Aydÿn *et al.,* 2016; Jones *et al.,* 2018; Koh; Cho; Kim, 2020; Mundinger *et al.,* 2011; Sabater-Abad *et al.,* 2020).

On average, these tumors measure less than one centimeter at their maximum diameter, very rarely exceeding 3 cm (Aydÿn *et al.,* 2016; Jones *et al.,* 2018; Koh; Cho; Kim, 2020; Mundinger *et al.,* 2011; Sabater-Abad *et al.,* 2020). When this measurement reaches 5 centimeters or If the tumor is longer, it can be classified as a giant pilomatricoma (Aydÿn *et al.,* 2016; Koh; Cho; Kim, 2020; Sabater-Abad *et al.,* 2020). Up to 2020, only 71 cases of pilomatricomas were reported. measuring ÿ4 centimeters had been reported in the literature (Sabater-Abad *et al.,* 2020).

The following account follows the clinical trajectory of a patient with a rapidly progressing neoplasm. Growth in the topography of the parotid region. Despite the initial impression of malignancy, the lesion It turned out to be a rare presentation of an unusual tumor.

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2 Results

A 20-year-old male patient presented with a nodule in the parotid region.
right-hand pain that appeared 8 months ago, which was monitored by the Head and Neck Surgery service.
for the following 4 months. The initial physical examination revealed a mobile nodule of approximately 1 cm,
Fibroelastic, painless to palpation, associated with pain and numbness in the right hemiface, with preservation
facial expressions and adherence to subcutaneous tissue and dermis were noted. Cervical ultrasound showed
that the nodule was located in the right parotid gland, without invasion of surrounding structures or
Associated lymphadenopathy. There was marked growth of the lesion over the next 4 months.
monitoring, during which the diameter increased from 1 cm to 5 cm. In the last month it started
Painful condition upon palpation. Due to the extent of the tumor, its accelerated growth, and the manifestation of...
Pain and the appearance of tissue infiltration are the main clinical suspicions of the Head and Neck Surgery team.
And Pescoço was diagnosed with malignant neoplasm of the parotid gland.

A parotidectomy was scheduled and performed by the team in the same month. The approach
The surgery was performed using the Blair incision. However, during the dissection of the skin flap, it was
It was determined that the nodule was not attached to the parotid gland, but rather confined to the subcutaneous tissue.
Resection of the lesion occurred easily due to the clear cleavage plane, without invasion of the surrounding tissue.
adjacent structures. Figures 1 and 2 correspond to the external and internal aspects of the lesion.
respectively, during the intraoperative procedure. The entire tumor was resected (Figure 3) and sent to
Anatomopathological analysis.

Figure 1. External appearance of the lesion during surgery.

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Figure 2. Internal aspect of the lesion during surgery.

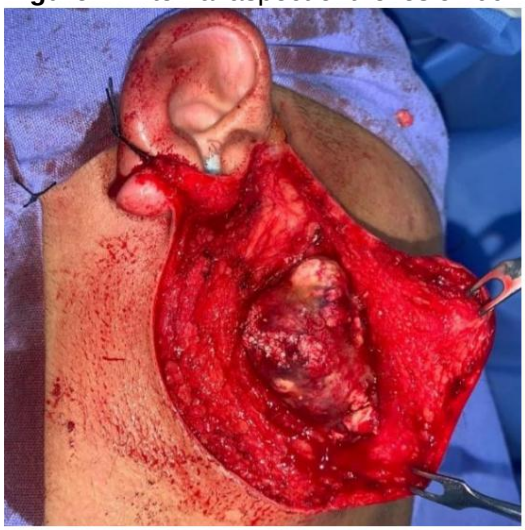

Figure 3. Excised tumor

The anatomopathological evaluation revealed an irregularly rounded nodule of tissue. brownish, measuring 5.0 x 3.5 x 2.5 cm and weighing 25g, whose histopathology is compatible with pilomatricoma, with marginal resection.

In a post-operative consultation, the patient reported complete regression of symptoms. showing excellent recovery and healing. There were no cervical lymph nodes. palpable or signs of facial nerve involvement.

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3. Discussion

Pilomatricoma is a rare benign neoplasm that originates in the basal layer of the epidermis. from stem cells in the hair follicle matrix(Aydÿn *et al.,* 2016; Jones *et al.,* 2018; Koh; (Cho; Kim, 2020; Mundinger *et al.,* 2011; Sabater-Abad *et al.,* 2020). The pathophysiology is not fully understood, but is associated with mutations in the CTNNB1 gene, which encodes beta-Catenin, an effector in the WNT signaling pathway that modulates multiple cellular processes of cell formation. of the hair follicle (Jones *et al.,* 2018; Koh; Cho; Kim, 2020). There are also well-established associations documented links between pilomatricomas and genetic diseases, suggesting abnormalities in other cell signaling pathways (Aydÿn *et al.,* 2016; Jones *et al.,* 2018).

Anatomopathological analysis is indispensable for diagnosis (Aydÿn *et al.,* 2016; Jones *et al.,* 2018; Koh; Cho; Kim, 2020; Mundinger *et al.,* 2011; Sabater-Abad *et al.,* 2020). Histologically, pilomatricomas consist of encapsulated dermal nodules composed of outer root sheath cells arranged in a circular configuration, with cells basaloid germ cells in the periphery and anucleated ghost cells (“ghost” or “shadow” cells) in the center(Jones *et al.,* 2018; Koh; Cho; Kim, 2020; Mundinger *et al.,* 2011; Sabater-Abad *et al.,* 2020). These cells are interpreted as apoptotic remnants of keratinocyte pillars. Ectodermal structures that fail to develop into mature hair follicles, exhibiting calcification. dystrophic over time (Mundinger *et al.,* 2011).

Surgical treatment was used in all cases identified in the literature (Jones *et al.,* 2018; Sabater-Abad *et al.,* 2020). When giant pilomatricomas are located in the parotid region, a Superficial parotidectomy may be necessary in ÿ50% of cases (Sabater-Abad *et al.,* 2020). Fortunately, this did not happen in our case. Recurrences are not frequent and, if they do occur, they are... related to incomplete tumor excision (Jones *et al.,* 2018; Sabater-Abad *et al.,* 2020).

The clinical picture of pilomatricomas, especially the giant variety, tends to be... confused with other neoplasms(Aydÿn *et al.,* 2016; Jones *et al.,* 2018; Koh; Cho; Kim, 2020; Mundinger *et al.,* 2011; Sabater-Abad *et al.,* 2020). This is justified by its low prevalence and due to the presence of characteristics such as exaggerated size, rapid growth, appearance of Tissue infiltration, stiffness, pain symptoms, and hemiparesis. Up to 40% of pilomatricomas Giant tumors are ulcerated (Sabater-Abad *et al.,* 2020), which would reinforce the hypothesis of malignancy in this tumor. Type of presentation. In large tumors located in the parotid region, suspicion often arises. initial clinical picture may be of parotid malignant neoplasm(Aydÿn *et al.,* 2016; Koh; Cho; Kim, 2020; Mundinger *et al.,* 2011).

The parotid region appears to be a common location for the incidence of pilomatricomas(Aydÿn *et al.,* 2016; Jones *et al.,* 2018; Koh; Cho; Kim, 2020; Mundinger *et al.,* 2011). Jones et al. reviewed 2189 cases, concluding that the most frequent sites of injury are the head and neck.

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(64% of cases), so the most affected location is the central-facial region. The lesions occurred most commonly in the first and second decades (average of 16 years and 7 months). In a 1910 review In some cases, 94% of the tumors were solitary (Jones *et al.,* 2018).

Therefore, the course of action adopted by the head and neck surgery team was excision. simple diagnosis followed by histopathological analysis for diagnostic confirmation and elimination of possibility of malignancy.

Final Considerations

Pilomatricoma is a rare, benign skin condition with multiple presentations. Giant pilomatricomas can exhibit characteristics similar to malignancies and should be investigated. considered as a differential diagnosis for rigid and expansive nodules in the region parotid gland. The treatment of choice, as with other benign epidermal tumors, is Simple surgical excision. Histopathological analysis is essential for confirmation of the disease.

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