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NASAL SCHWANNOMA - CASE REPORT

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ABSTRACT

The article presents two cases of nasal shcwannomaand its clinical repercussions. Despite being a frequent head and neck tumor, the schwannoma affects the nasal cavity and paranasal sinuses in only 4% of cases. Its treatment is surgicalaiming the preservation the affected nerve and that can be done endoscopically or by lateral rhinotomy.

In one of the cases, the patient had unilateral, repetitive and self-limiting epistaxis, with no apparent nasal lesion justifying the complaint. An expansive lesion was detected in the right middle meatus on the computed tomography (CT). The lesion was excised through the endoscopic approach. In the other case the patient did not report nasal complaints and the schwannoma was a finding during the diagnostic investigation of bilateral tinnitus.

Schwannoma is an oligosymptomatic disease and a clinical suspicion should always be made for an early diagnosis. In both cases, the treatment was performed through endoscopic surgery with total lesion excision and good clinical evolution in the postoperative period. This article aims to highlight the importance of considering the schwannoma in the differential diagnosis of nasal cavity masses.

KEY WORDS: Schwann cells, otolaryngological tumor, endonasal tumor, neurofibromas, schwannoma.

1. INTRODUCTION

Schwannoma is a tumor caused by the disordered multiplication of Schwann cells, responsible for the formation of the myelin sheath in the peripheral nervous system. It is usually benign, encapsulated, slow-growing and affects head and neck between 25% and 45% of cases. The most common location of the schwannoma is in the VIII cranial nerve (80% of cases)[1,2,3].

2. FIRST CASE REPORT

A 31-year-old male patient presented unilateral, repetitive and self-limiting epistaxis. Nasal lesion that justified the complaint was not detected in otorhinolaryngological physical examination. A nasofibrolaringoscopia examination detected purulent secretion and white mass in the region of the right middle meatus. The patient underwent cephalexin treatment and was submitted to a computed tomography of the facial sinus (CTFS) (Figure 1), showing expansive lesion in the right middle meatus as well as maxillary sinus lesion and ethmoidal cells also on the right.

The patient underwent mass excision through endoscopic surgery and the material was sent to anatomopathological examination, which diagnosed benign schwannoma. A CTFS was requested for postoperative control (Figure 2), which did not show lesions after 10 months postoperatively.

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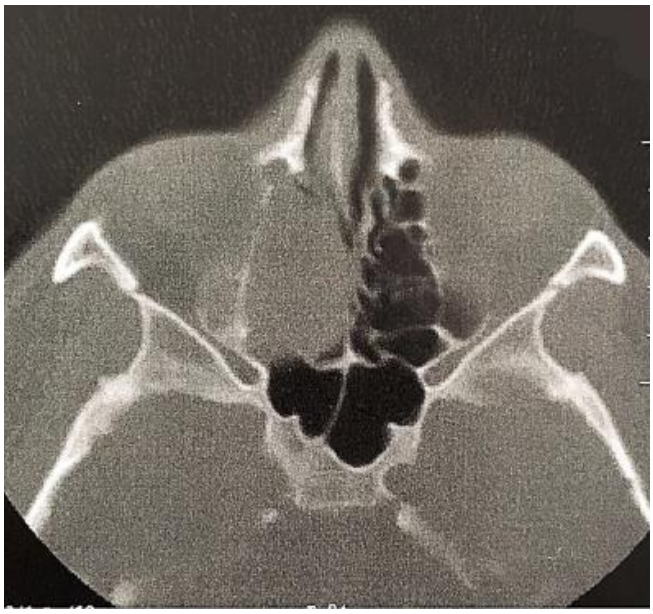

Figure 1: CTFS (axial section) showing expansive lesion in the right middle meatus as well as maxillary sinus lesion and ethmoid cells also on the right.

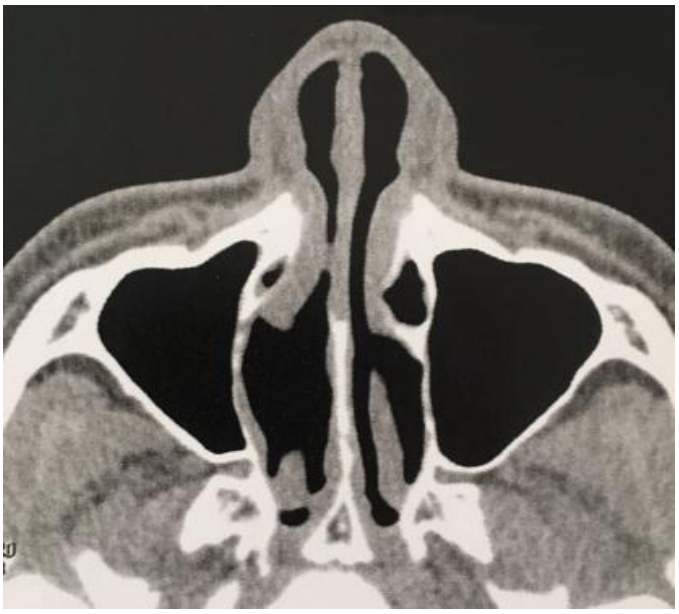

Figure 2: CTFS (axial cut) after 10 months postoperatively, with no evidence of lesions.

3. SECOND CASE REPORT

A 59-year-old female patient complaining of bilateral tinnitus; Presented during diagnostic investigation an alteration of the sphenoidal sinuses on radiological examination. A nasofibrolaryngoscopy was done, which revealed a bulging, non-pulsatile in the posterior region of the middle turbinate.

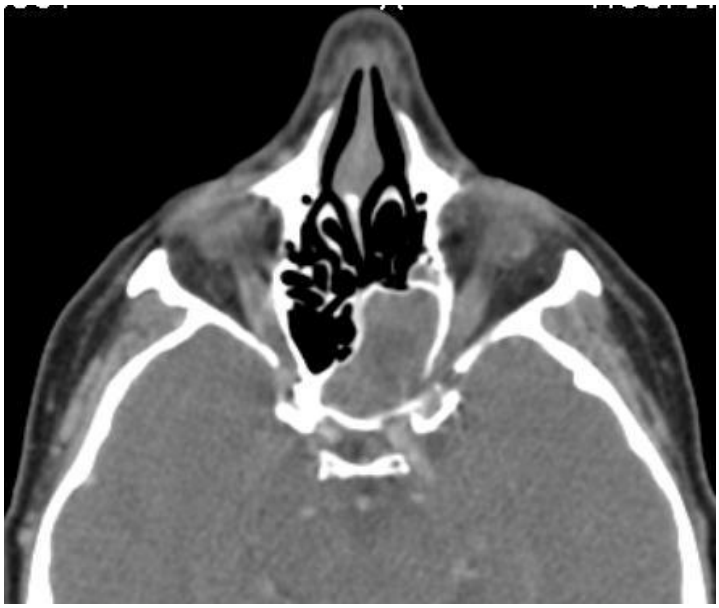

Figure 3: CTF (axial cut): 41mm x 24.5mm mass with attenuation of soft parts with no contrast enhancement, obliterating and widening the left sphenoid sinus, thinning and bone erosion of the posterior wall and contact with left posterior ethmoid sinus.

The CTFS showed a 41mm x 24.5mm mass with attenuation of soft parts without enhancement after contrast, obliterating and widening the left sphenoid sinus, determining thinning and bone erosion of the posterior wall, contact with left posterior ethmoid, with no communication with the brain tissue. Right sphenoid sinus with reduced dimensions and obliterated by soft tissue content. Conclusion: Left sphenoid mucocele (Figure 3).

Nuclear Magnetic Resonance (NMR) revealed sphenoid sinuses with tendency to pneumosinus and basilar expansion, with no definition of the bone limits between them, due to the expansive and heterogeneous formation, obliterating the cavities and determining thinning of the limiting bone margins.

Sphenoidalsinusotomy and left middleturbinectomy were performed by endoscopic surgery, with excision of the entire lesion. Anatomopathological examination revealed spindle cell neoplasia and immunohistochemistry revealed fusocellularmesenchymalneoplasia with neural

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differentiation and diffuse expression for S-100 protein.

4. DISCUSSION

Despite being a frequent head and neck tumor, schwannoma affects the nasal cavity and paranasal sinuses in only 4% of cases[2]. Its most common location is the VIII cranial nerve.
In cases of nasal schwannoma the symptoms may be vague, responsible for complaints such as unilateral nasal obstruction, rhinorrhea, headache, anosmia and deformity of the nasal pyramid. Eventually it causes pain, serous meddle otitis and epistaxis, such as the patient presented in the case[4].

At the physical examination, the deformity of the nasal pyramid can be observed at the inspection and gray matter, with a polyp aspect, very vascularized and therefore bleeding easily to the anterior rhinoscopy[2]. In the cases reported there was no change in rectoscopy and one of them was asymptomatic. Usually the diagnosis is made from nasal endoscopy, associated with image and histopathological examination. CTFS shows a heterogeneous, circumscribed image with hyperintense areas. NMR shows isointense images in T1 and hyperintense in T2[1,2]

Anatomopathological examination demonstrates two patterns: Antoni A and Antoni B. On first, we see fusiform Schwann cells aligned parallel to areas of amorphous collagen, compacted cell areas with bipolar spindle cells, aligned parallel to areas of amorphous collagen, with ovoid nucleus and clear cytoplasm, arranged in palisade or Verocay corps. The second is also characterized by fusiform schwann cells, however, disorderly distributed, cellular polymorphism, tumor cells separated by loose areas of eosinophilic matrix. Patients with schwannoma may present both histological patterns. Immunohistochemistry may show S-1001.5 protein expression.

The treatment of schwannoma is surgical. It is sought to preserve the affected nerve, and the procedure can be performed endoscopically or by lateral rhinotomy.
In thepresented cases, endoscopic mass resections were performed. There were no surgical complications during and after the act, and the patients progressed well, without complications or recurrences to date.

5. CONCLUSION

Schwannoma is a rare tumor in nasal and paranasal cavities, responsible for reserved symptomatology and making diagnosis difficult. This article aims to highlight the importance of considering the schwannoma in the differential diagnosis of nasal cavity masses.

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