

Adenoma pleomórfico gigante do espaço parafaríngeo

Giant pleomorphic adenoma in the parapharyngeal space

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RESUMO

No presente artigo descreve-se um caso clínico dum adenoma pleomórfico gigante da parótida com extensão parafaríngea. Tecem-se considerações quanto às medidas diagnósticas e orientação terapêutica efectuada.

ABSTRACT

Parapharyngeal tumours are rare. Usually they are asymptomatic but by growing they can reach compressive clinic and displacement of adjacent structures, as the case presented, with 8 cm of diameter.

They are usually benign. To complete diagnosis on require a full radiological study with CT and MRI, and a cervical ultrasound-guided FNA. Initially an open biopsy is not recommended, but sometimes can be useful to achieve a diagnosis.

Complete surgical excision is the treatment of choice. The approach will be chosen according to the origin, extension and pathologic characteristics. The most common are the transcervical, cervical-transparotid and transmandibular approach. As most of these tumours are benign, the best approach to be used, should be the one that involves less morbidity and less risk of recurrence for the patient.

Post-operatives complications depend on the surgical approach used. Lower cranial neuropathies are the most frequent, but mostly are transient and resolve spontaneously.

Keywords: Neoplasm, parotid, adenoma, pleomorphic, parapharyngeal

INTRODUCTION

The parapharyngeal space is located laterally to the nasopharynx and in front to the cervical spine. It has the form of a reversed pyramid, extending from the base of the skull, up to the hyoid bone. The styloid process, divide this space in retrostyloid and prestyloid¹.

The occurrence of tumours in this space is uncommon; 0.5% of all the head and neck tumours². Among 70-80% of these tumours are benign; around the 40-50% depends on the salivary gland, particularly the pleomorphic adenoma^{3,4}. In 50% of cases they are asymptomatic until they reach a certain size, when they may start causing symptoms like: cervical mass, Eustachian tube dysfunctions, parapharyngeal paresthesia⁵.

We report a clinical case of a giant pleomorphic adenoma, in parapharyngeal space, independent from the parotid gland. Related imagiological aspects and the approach used for treatment is discussed.

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CASE REPORT

We present a 32 year old female patient, with no significant medical history and a one year history of a foreign body sensation in the pharynx, associated with a laterocervical mass.

In the oropharynx a medial displacement of the left lateral pharyngeal wall, projecting down to the ipsilateral pyriform sinus was observed.

The computerized tomography (CT) evidenced a well

limited solid mass (56 x 40 x 80) with a heterogeneous consistency, in the left parapharyngeal space. It enhanced discreetly after the administration of intravenous contrast and displace medially the airway. Lymph nodes were not visualized. By the CT and subsequent Magnetic Resonance Imaging (MRI), our first view was a prestyloid adenoma dependent to the left parotid or to an ectopic salivary gland (Fig 1-4)

Figure 1 and 4 show a dividing line, separating the

FIGURA 1 - 3

Sequence coronal and sagittal-axial unenhanced T2: Well-circumscribed mass; hiperintense and heterogenous; with emphasized in the left parapharyngeal space. It shifts the left parotid by not dependent on it.

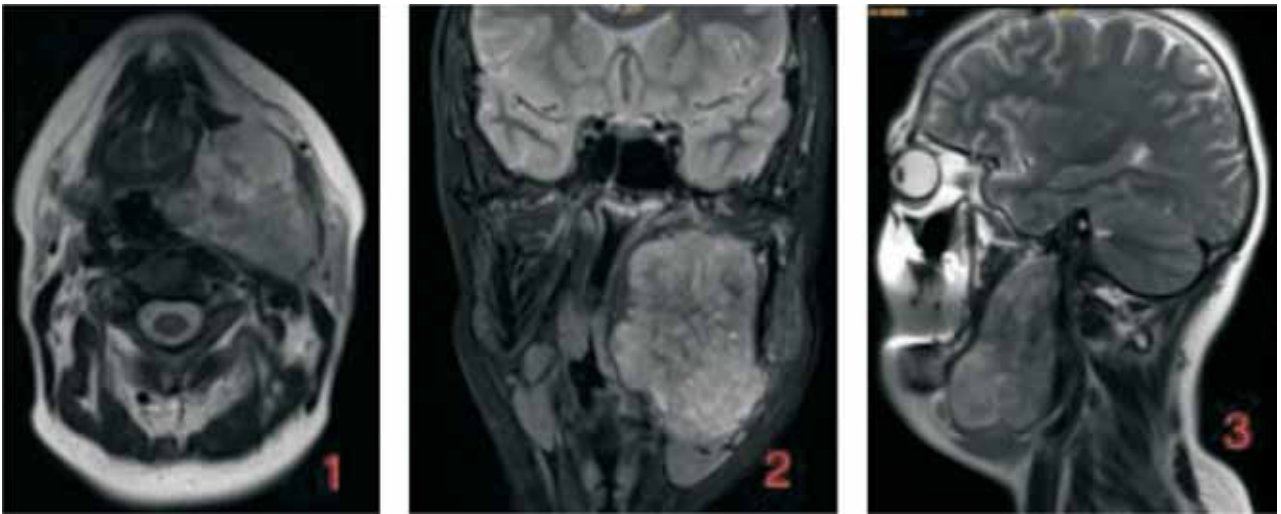
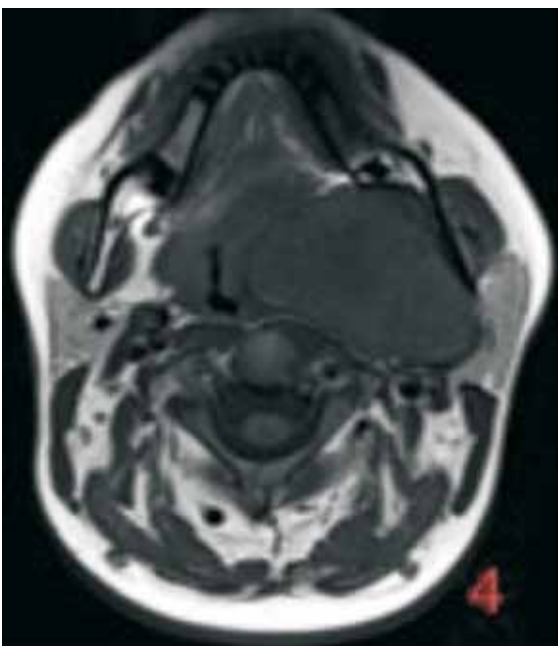


FIGURA 4

Sequence axial unenhanced T1: Note the line that separates the ipsilateral parotid gland tumour.



tumour from the ipsilateral parotid gland. Fine needle aspiration (FNA) reported a pleomorphic adenoma. Subsequently a surgical treatment option was decided via a transcervical approach (Figure 5 and 6).

During surgery, the submandibular gland was removed for better access to the tumour. A complete neck dissection was performed, followed by digital dissection, and we did not need to extend the surgical approach (Figure 7).

Postoperative recovery was uneventful and favourable. A new MRI was performed, 6 months after surgery, showing all the adjacent structures in their usual anatomical position (Figure 8).

FIGURA 5 - 7

Operative view and surgical specimen

**FIGURA 8**

Post-operative MRI showing complete removal of the lesion



DISCUSSION AND CONCLUSION

The parapharyngeal space is a virtual and complex anatomic region, located between the ramus of the jaw, and the pharynx. It extends like an inverted pyramid, from the base of the skull, up to the hyoid bone. The external wall is made up of the sternocleidomastoid muscle, the superficial cervical fascia, the parotid gland, the ramus of the jaw, the pterygoid and masseter muscles. The inner wall constitutes the lateral aspect of the pharynx. The posterior wall includes the prevertebral muscles, the transverse cervical and their aponeurosis. The styloid process, together with the muscles and ligaments form a diaphragm, that divides this space into prestyloid and retrostyloid. The anterior compartment, or prestyloid, is occupied by the deep lobe of the parotid gland, lymph nodes, internal maxillary artery, inferior alveolar nerve, lingual and auriculotemporal nerve, as well as fatty tissue. In the retrostyloid compartment is

located the jugular vein, the carotid and cranial nerves IX to XII.^{1,6-8}

About 80% of the masses found in the parapharyngeal space, are salivary gland tumors, neurogenic tumours, paragangliomas and lymphomas. The rest include: hemangiomas, lipomas, liposarcomas, meningiomas, lymphangiomas, branchial cysts, fibrosarcomas, malignant fibrous histiocytomas, rhabdomyosarcomas, leiomyomas, chordomas and metastasis.⁹ The pleomorphic adenoma could be formed from the deep lobe of the parotid, or independently form an accessory gland. These are usually asymptomatic until they grow (2-3 cm) and compressed adjacent structures, causing dysphonia, pain and dysphagia, as in the case here exposed.

A transoral or transcervical FNA is preferred for a histological analysis. Most authors have opted for an imaging-guided transcervical percutaneous FNA, to avoid possible injury to close structures (vessels, nerves... etc), and to increase the sensibility and reduce the false negatives. Khaff *et al.*² showed over 87% sensitivity and 100% specificity with the FNA transcervical in tumours of the parapharyngeal space, in which vascular origin has been first excluded by imaging. But it hasn't been able to distinguish between benign neurogenic tumours form malignant lesions.

The transoral or the transcervical open biopsy should not be done when we suspect lymphoma or malignancy on radiological images, as they increase the risk of bleeding and/or the risk of capsular rupture.^{3,10,11}

The imaging by CT and MRI provide us information about the location and the extension of the injury. Masses located at the prestyloid space move the jugulodigastric axis backward, and those which are in retrostyloid space, move it forward.^{3,8} If they show great vascularization is recommended an angiographic study to locate the feeding artery.^{5,10}

In our case, the posterior displacement of the vessel bundle, together with the radiological features and the outcome of percutaneous transcervical FNA, oriented, as a first option, as a pleomorphic adenoma. Then we had to distinguish whether the mass depend on the deep lobe of the parotid gland. Thanks to the MRI we could find a thin plane that separates the mass

of the parotid gland, indicating that the tumour was independent of it. If this plane had not existed, we could infer that the mass was dependent on the parotid gland or have invaded it.^{3,12,13}

The treatment of these tumours is always surgical. The approach chosen depends on the location (prestyloid or retrostyloid), the size, his relation to great vessels, his vascularity and the suspicion of malignancy.^{2,5,11,14}

The intraoral approach can be used in small avascular tumours, occurring in the oropharynx and that are not extending beyond the styloid process. However, the transcervical approach is the most commonly used. It offers a direct access to the parapharyngeal space, adequate control of the great vessels, and is useful both in benign and malignant lesions. Therefore it was the approach chosen in this case.

The transparotid/transcervical approach is useful in prestyloid tumours and those that depend on the deep lobe of the parotid gland, requiring a superficial parotidectomy, with the disadvantage of the risk of injuring the facial nerve.

Other combined approaches have been described as the intraoral_transparotid, intraoral_transcervical or orbitozygomatic_middle fossa. The transmandibular way is reserved for malignant, vascular tumours of great size.^{3,5,9,14,15}

The current case report depicts how such a tumour can grow in size before the patient becomes symptomatic enhancing the need for a strong clinical suspicion as well as the need for complementary imagiology to establish an appropriate diagnosis and management. Despite the pre-operative dimensions of the lesion, the patient had a satisfactory recovery without significant sequelae after surgery.

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