Rare Parapharyngeal Space Tumor: One Case Of Pleomorphic Adenoma Of The Accessories Salivary Gland

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Citation

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Abstract

Introduction: Parapharyngeal space tumors are rare, they represent only 0.5% of head and neck tumors. Among these tumors, Pleomorphic adenoma of salivary gland is the most benign tumor particularly developed in depends of the deep lobe of Parotid gland. This clinical observation allows us to describe a specific case of parapharyngeal tumor developed in depends of accessory salivary glands.

Observation: We report the observation of a 43 years old patient without a specific pathological history which was diagnosed with a rare parapharyngeal tumor, the Pleomorphic adenoma developed in depends of accessory salivary glands. While doing a review of the literature we are discussing means of diagnosis and treatment of this affection.

Conclusion: Parapharyngeal tumors are rare, they still raise the problem of precocity of their diagnosis and the most suitable surgical procedure

INTRODUCTION

The parapharyngeal space is a complex anatomic space located between the base of skull at the top, the first three vertebral bodies at the back, the upper part of pharynx inside, and the parotid region laterally. It is subdivided into two spaces: the retropharyngeal space and the lateropharyngeal space. Tumors developed in this space are infrequent and represent 0.5 to 1% of tumors of the head and neck [1]. Among these tumors, tumors of salivary glands are the most common. They constitute almost 50% of the cases of parapharyngeals tumors and the most encountered histologic type is the pleomorphic adenoma of the lower pole of the parotid [2].

Accessory salivary gland tumors are extremely rare in this anatomical space and there is no clinical difference between these tumors and other glandular tumors [3].

Positive diagnosis of these tumors is generally late due to their slow evolution and absence of specific signs. This diagnosis was also delayed in our case due to an insufficient diagnostic technical platform. This clinical case study allows us to assess our difficulties of diagnosis and therapy in these cases.

CASE REPORT

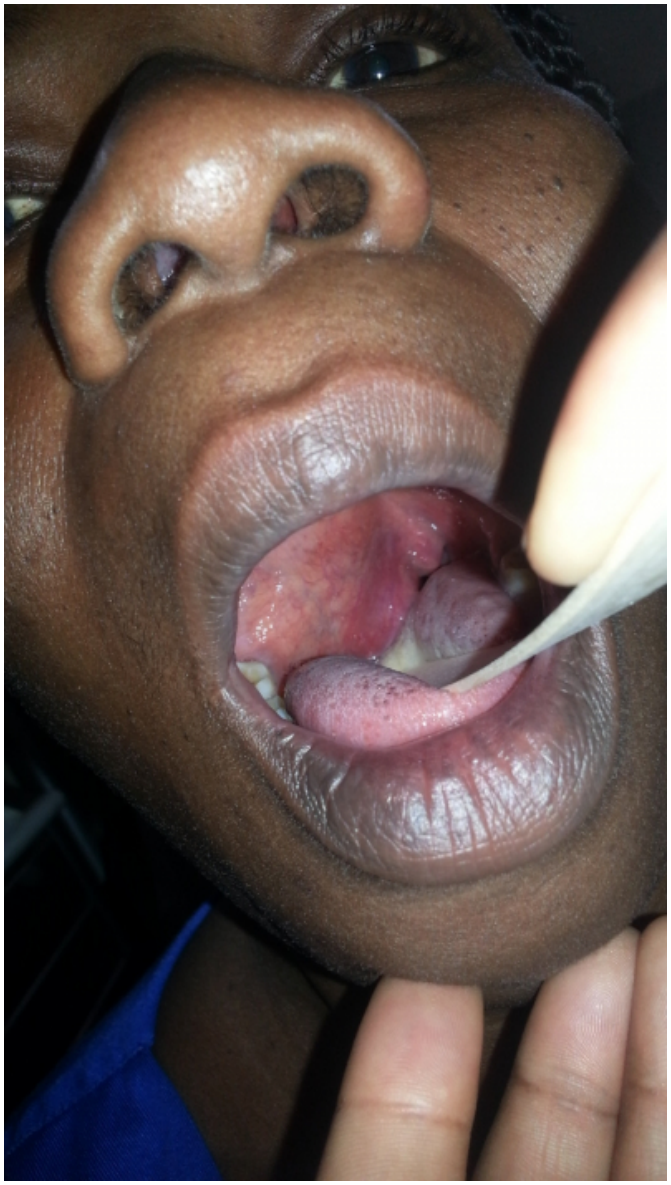
A 43 year old patient without a specific pathological history consulted in the ENT office for dysphagia to solids and breathing difficulties. The beginning of the clinical symptoms dated back to 3 years before with progression of discomfort when swallowing. This symptoms did progressively worsen within the past 6 months prior to the consultation including difficulty of breathing while doing any effort and with odynophagia. Because of the persistence of these signs the patient was referred to us for support.

The examination of the oral cavity and oropharynx found a mass of the right side wall of the oropharynx repressing the uvula and ipsilateral amygdala inside, and as consequence a reduction of the aero-digestive track.

This mass was hard, non-painful to palpation, and had no cervical expression. The rest of the ENT examination and other devices was unremarkable (see photograph 1).

Photograph 1

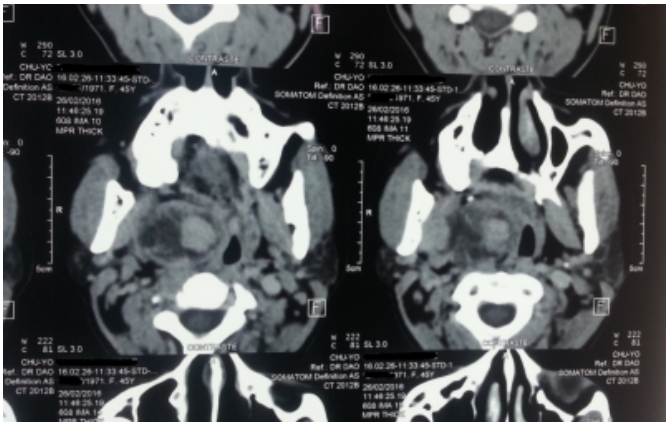
Oropharynx mass repressing the uvula and ipsilateral amygdala



The face and neck tomography revealed that an inhomogeneous well limited tumor with a necrotic range developed in the right pre-stylien space with mass effect on the deep spaces and filling the Eustachian tube (see photograph 2).

Photograph 2

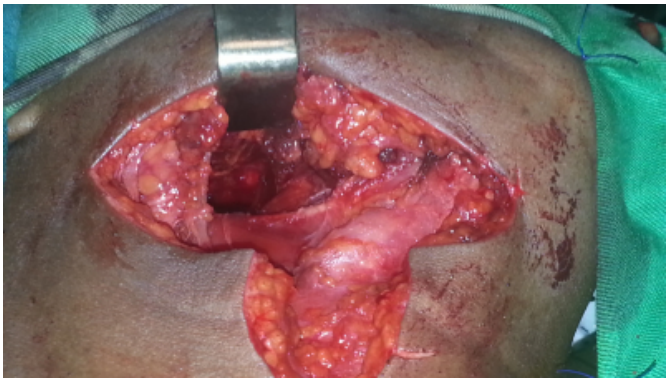
CT revealed an inhomogeneous tumor developed in the right pre-stylien space



Treatment consisted of a complete resection of the mass by transcervical approach after right submandibular gland surgical resection (see photograph 3 and photograph 4).

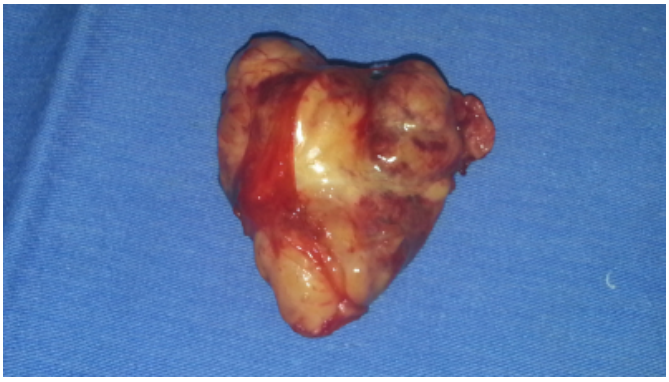
Photograph 3

Resection of the mass by transcervical approach



Photograph 4

Parapharyngeal mass

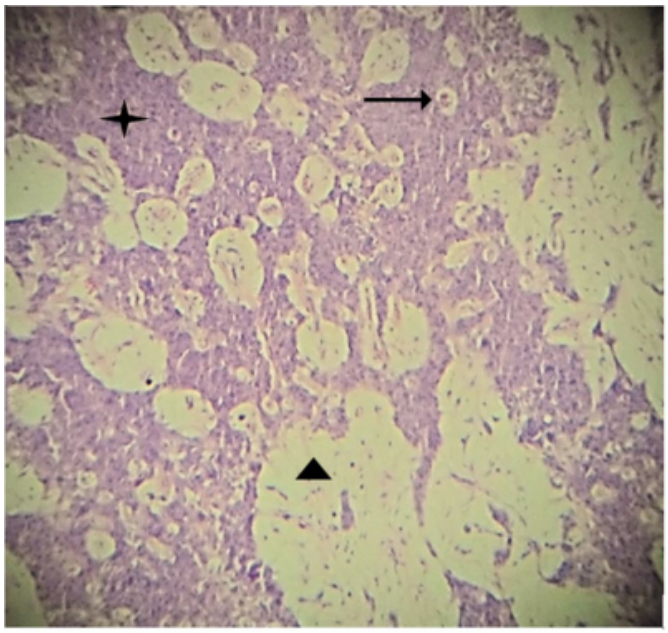


The immediate postoperative care was simple and the histological examination revealed an accessory salivary

gland pleomorphic adenoma (see photograph 5).

Photograph 5

Histological result: accessory salivary gland pleomorphic adenoma (GX100 HE)



DISCUSSION

Parapharyngeal space tumors are relatively frequent and they represent 0.5 to 1% of all tumors of the head and neck [1, 2, 3]. Benign in 70-80% of cases, primary tumors of the salivary glands are most common in this space (40-50%) and 22% of these salivary tumors are derived from the accessory salivary glands [3]. Among these accessory salivary tumors, the authors found that 18% are benign and the most common histological type of these benign accessory salivary glands tumors is the pleomorphic adenoma [2, 4].

According to a study, the most common site of pleomorphic adenoma of the minor salivary gland is the palate followed by the lips, then buccal mucosa, floor of mouth, tongue, tonsil, pharynx, retromolar area, and nasal cavity [2, 5].

Clinical signs of these tumors as dysphagia, odynophagia, dysphonia, laryngeal dyspnea, and dysarthria. These signs depend on the location of the tumor and its compressive effect on surrounding structures. Sometimes these tumors are totally asymptomatic [6].

The positive diagnosis of these parapharyngeal tumors is based on imaging, in particular on computed tomography (CT) and magnetic resonance imaging (MRI) [1, 2, 4]. These two exams provide information about the exact location of the tumor, its size, its macroscopic aspect, and its relations to the large vessels of the neck [2]. Sometimes angiography (angio-MRI) can be performed to evaluate the relation of the tumor with the large vessels of the neck or determine the foster branch of a vascular tumor [1, 7]. In our clinical case CT was the exam of choice which enabled us to trace the parapharyngeal origin of the tumor.

The nature of the tumor is given by histological examination after surgical resection of the parapharyngeal mass. Cytological analysis can also give clues about the nature of the tumor but its interpretation must be cautious because of the sometimes tricky location of the tumor and its relations with the large vessels of the neck. Diagnosis can be facilitated by CT or ultrasound. Its sensitivity would be greater than 80% [8].

Treatment of parapharyngeal tumors is surgical. The difficulties of this surgery are essentially two-fold: difficult access to the deep area of neck and presence of vital structures in this space such as vascular, nervous and lymphatic tissues and structures which lead to serious complications when injured.

There are various surgical approaches suggested in the literature for the resection of parapharyngeal tumors. The intraoral approach or transoral or transpalatine approach is less commonly used these days. Indeed this approach allows only limited access to the parapharyngeal space with the consequence of: an unsatisfactory control on the tumor (especially when it is large), the risk of injury of large vessels of the neck that can have as consequence an uncontrollable massive haemorrhage, and the risk of injury of the nerves in the area [7]. In agreement with Arsheed et al [2] we believe that this path must be reserved for prestyloide parapharyngeal benign tumors of small size (less than 3 cm in diameter).

Iseri et al. [9] have recently described the technique of endoscopy assisted transoral approach which allows greater exposure of the space and thereby less complications. This technique is not yet available in our healthcare setting.

Transcervical approach described by Morfit in 1955 is for us and many other authors the best choice [2, 3, 4, 6]. In this approach, a transverse, curvilinear incision is placed in the natural skin crease, two fingers breadth below and behind the ramus and the angle of the mandible at the level of the hyoid bone. This approach offers an excellent access to the parapharyngeal space and gives an adequate control over the

neurovascular bundle in the neck. The submandibular gland may be excised if necessary. In addition, this incision is so designed as to permit an ease in conversion to a more extensive operation that may be necessary in cases of malignancy necessitating lymphadenectomy.

Vanessa SF et al [10], have described this approach as an adequate and sufficient approach for complete excision of most parapharyngeal tumors.

In our clinical case this transcervical approach allowed a complete resection of the tumor without any nervous or vascular complications.

Cranio-facial approaches are reserved for tumors that extend into the infratemporal fossa, the base of the skull, the temporal bone, or the nasopharynx [6].

Recidivism is rare in pleomorphic adenomas of accessory salivary glands [11]. It depends on the quality of tumor excision. It varies from 2.4 to 10% [12].

Incidence of malignant transformation is also rare. It occurs in less than 7% of the patients [11]. This transformation risk would increase with the frequency of recurrences and the delay of diagnosis, ranging from 1.6% before 5 years to 9.4% after 15 years according to Zeb J et al [13].

CONCLUSION

Parapharyngeal tumors are relatively infrequent with generally a late diagnosis in our area of the world because of the inaccessibility and unavailability of modern imaging exams such as CT and MRI. The treatment of these parapharyngeal tumors is surgical. The transcervical approach allows an excellent control of the tumor and neurovascular elements.

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