

PLEOMORPHIC ADENOMA OF BOTH HARD AND SOFT PALATE- A CASE REPORT.

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ABSTRACT: Pleomorphic adenoma of major salivary gland like parotid is most common and generally it affect the superficial lobe of the gland. It sometime affect the minor salivary gland of different structure of face. It is rarely seen in minor salivary gland of the hard and soft palate . Surgery with negative margins does not lead to recurrence. We have encountered a pleomorphic adenoma of minor salivary gland of posterior part of hard palate in young female patient and it was excised with definitive margin with no recurrence. The defect was left to granulate of itself uneventfully.

KEYWORDS: Pleomorphic Adenoma, Hard palate, Palatal splint, Minor salivary gland.

INTRODUCTION

Pleomorphic adenoma is the commonest benign tumour to arise in the minor salivary glands. However, majority of minor salivary gland tumours are of the malignant variety. Tumours of the salivary gland are rare and account for less than 3% of the head and neck tumours¹. Pleomorphic adenoma is a benign salivary gland tumor that exhibits wide cytomorphologic and architectural diversity. The tumor has the following 3 components:

- An epithelial cell component
- A myoepithelial cell component
- A stromal (mesenchymal) component

Identification of these 3 components, which may vary quantitatively from one tumor to another, is essential to the recognition of pleomorphic adenoma.

The tumours maybe derived from the salivary epithelium or the supportive stroma. Among the benign tumours, pleomorphic adenoma is the most common, accounting for approximately 60% of all salivary gland neoplasms². Fifty percent of all oral minor salivary gland tumours are pleomorphic adenoma of which 55% arise in the palate, 25% in the lip, 10% in buccal mucosa, and 10% other sites in the oropharynx.³ The tumour cells show a wide spectrum of epithelial and mesenchymal

differentiation and thus the name pleomorphic adenoma or benign mixed tumour.

Case Report

A 32 year old female reported to the Department of Dentistry with a slowly growing right hard palate mass that had been present for the last 3 year (**Fig.1. and Fig.2.**). The non tender mass was causing difficulty in swallowing and deglutition. The mass was causing depression of the tongue. No associated constitutional symptoms were noted. All blood counts were within normal limits. There was no history of diabetes or hypertension. Intraoral examination revealed a diffuse swelling present in relation to the right side of the hard palate measuring roughly about 5 × 4.5 cm, roughly oval in shape .extending from the distal aspect of 1, posteriorly to the right side of retromolar area and Mediolaterally, the swelling extends from lingual surface of maxillary molar teeth to the point crossing 0.5 cm of midpalatine raphe. The mucosa over the swelling appeared to be near normal with slight reddish brown background with no secondary changes. Intraorally, the swelling was non – tender, firm in consistency, non– compressible on palpation , did not show any fluctuation or pus discharge. There was no regional lymphadenopathy. There was no displacement or mobility of teeth adjacent to the lesion. However;

Computed tomography (CT) showed a well-circumscribed 3.5 cm right hard palate mass with no underlying bony destruction .(Fig.3.)

A clinical differential diagnoses of condylomata acuminata, squamous cell carcinoma, oral papilloma, minor salivary gland tumor, Kaposi's sarcoma, syphilitic gumma, and intraoral molluscum contagiosum were considered. An incisional biopsy revealed a benign tumor having characteristic features of pleomorphic adenoma Patient was taken to the theatre, under general anaesthesia, through nasoendotracheal intubation. Then an incision was given surrounding the tumour including 5mm of normal mucosal margins. Fine dissection was done and whole tumour mass was excised along with the mucoperiosteum and greater palatine neurovascular bundle was ligated and cauterized (Fig.4.)

The palatal defect created after the wide excision of the tumour mass was covered with a medicated pack. It was left to granulate as such(Fig.5.). A palatal splint was placed. Patient was given oral hygiene instructions to promote healing by secondary intention. Complete healing of the defect took two and half months and the patient was followed up every month up to 6 months and no recurrence was noted. The final histopathology report confirmed the diagnosis benign pleomorphic adenoma of minor salivary gland of hard palate.

Discussion

Pleomorphic adenoma, also known as benign mixed tumor is the most common tumor of salivary glands. It mostly arises in the parotid or submandibular salivary glands⁴. It may also arise in the minor salivary glands that are distributed throughout the oral cavity. The most frequent site of pleomorphic adenoma of the minor salivary glands is the hard and soft palate, followed by the upper lip.⁵ The term pleomorphic describes the embryogenic basis of origin of these tumors, which contains both epithelial and mesenchymal tissues.⁶ It has been postulated that these tumors arise from intercalated and myoepithelial cells.⁴

Intraoral pleomorphic adenoma appears as slowly growing, painless mass, usually in the fourth or fifth decade.⁵ Pain, tenderness and ulceration are unusual. Although it is a benign tumor, it has a high recurrence rate and in a small number of cases, a benign pleomorphic adenoma may degenerate into a malignant tumor.^{4,5} Pleomorphic adenomas of the oral cavity lack a well defined fibrous capsule, a feature associated with a high recurrence rate.⁵ These tumors are also able to invade and erode adjacent bone, causing radioluscent mottling on the x-ray of the maxilla.⁴

The diagnosis of pleomorphic adenoma is established on the basis of history, physical examination, cytology and histopathology. CT scan and MRI can provide information of the location, size and extension of tumor to surrounding superficial and deep structures.^{6,7,8}

The tumor presents morphologically diverse features, however, both epithelial and mesenchymal elements must be present for diagnosis.. Histopathology reveals a tumor composed of islands of stellate and spindle cells that are interspersed in a myxoid background.. The pleomorphic nature is determined by an inner layer of epithelial cells and an outer layer of myoepithelial cells arranged in a variety of patterns associated with scant or abundant stroma. Variation may include squamous metaplasia, calcification, cartilage-like tissue, oxyphilic cells and rarely malignant transformation.^{4,5}



Fig.1. Extra oral photograph of the patient



Fig.2.Palatal swelling in the right side of palate crossing midline

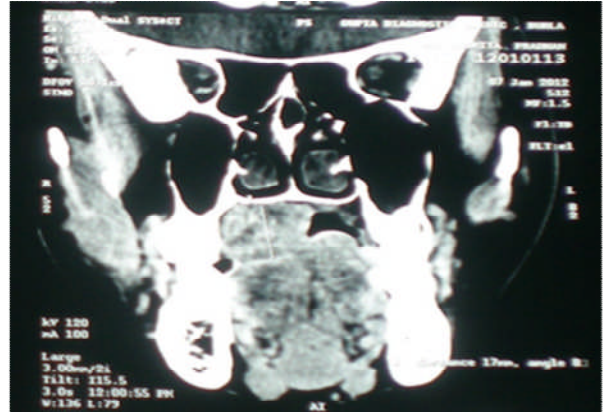


Fig.3. CT Scan showing the lesion without any underlying bone destruction but compressing the tongue

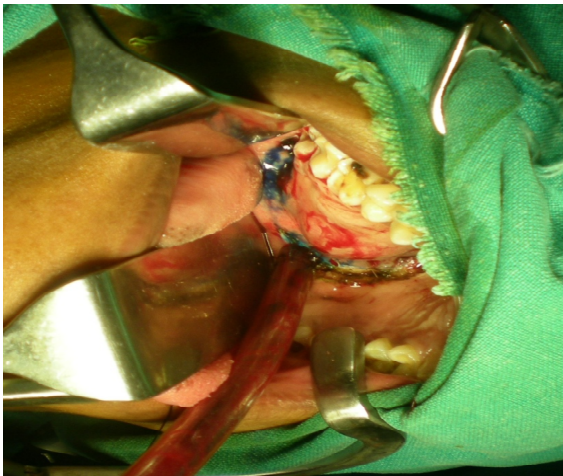


Fig.4. Intraoperative Photograph



Fig.5. Defect after excision of the lesion



Fig.6. Excisioned mass

The treatment of pleomorphic adenoma of the hard palate is surgical excision with a surrounding cuff of normal tissue.^{4,5} The excision should include periosteum or bone if these are included.⁵ These tumors usually do not recur after adequate surgical excision. Most recurrences can be attributable to inadequate surgical techniques such as simple enucleation leaving behind microscopic pseudopod-like extensions.⁵

References

1. Van der Wal JE, Leverstein H, Snow GB, Kraaijenhagen HA, Van der Waal I. Parotid gland tumors: histologic reevaluation and reclassification of 478 cases. *Head Neck*. 1998;20:204-7. [http://dx.doi.org/10.1002/\(SICI\)1097-0347\(199805\)20:3<204::AID-HED4>3.0.CO;2-4](http://dx.doi.org/10.1002/(SICI)1097-0347(199805)20:3<204::AID-HED4>3.0.CO;2-4)
2. Ellis GL, Auclair PL. *Tumors of the Salivary Glands (Atlas of Tumor Pathology)*. 3rd series. Fascicle 17. Washington, DC: Armed Forces of Institute of Pathology; 1996.
3. Takahama A Jr, Da Cruz Perez DE, Magrin J, De Almeida OP, Kowalski LP. Giant pleomorphic adenoma of the parotid gland. *Med Oral Patol Oral Cir Bucal*. 2008 ;13:E58-60.
4. Suen JY, Synderman NL. Benign neoplasms of the salivary glands. In: Cummings CW, Fredrickson JM, Harker LA, Krause CJ, Schuller DE eds., *Otolaryngology-Head and Neck surgery*. Mosby Year Book, 2nd edition, Vol. 2, 1993; 1029-1042.
5. Feinmesser R, Gay I. Pleomorphic adenoma of the hard palate: an invasive tumour? *J Laryngol Otol* 1983; 97:1169-1171. <http://dx.doi.org/10.1017/S002221510009616X>
6. Batsakis JG. Neoplasms of the minor and 'lesser' major salivary glands. In: *Tumors of the Head and Neck*. The Williams and Wilkins Company, Baltimore. 1981;38-47.
7. Weber AL. Pleomorphic adenoma of the hard palate. *Ann Otol Rhinol Laryngol* 1981; 90:192-194.
8. Noghreyan A, Gatot A, Mor E, Fliss DM. Palatal pleomorphic adenoma in a child. *J Laryngol Otol* 1995; 109:343-345. <http://dx.doi.org/10.1017/S0022215100130105>

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