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Pleomorphic Adenoma of Hard Palate: A Rare Case

Chaudhary M¹, Gupta M^{2*} and Sharma A³

¹Post Graduate IIIrd year (MS), Department of ENT, Maharishi Markandeshwar Institute of Medical Sciences and Research, Ambala, India

²Professor, Department of ENT, Maharishi Markandeshwar Institute of Medical Sciences and Research, Ambala, India

³Senior Resident, Department of Pathology, Maharishi Markandeshwar Institute of Medical Sciences and Research, Ambala, India

Abstract

Tumors of salivary gland are uncommon and accounts only for 2–3% of all tumors occurring in the head and neck. Pleomorphic adenoma is the most common benign tumor involving major salivary glands. Pleomorphic adenoma is very rarely arising tumor from minor salivary gland. Our case report outlines one such case of large size benign tumor on hard palate. Its presentation, diagnosis with differentials and treatment options are being discussed in detail.

Keywords: Pleomorphic adenoma; Minor salivary gland; Palate

Introduction

Pleomorphic adenoma of parotid is the most common tumor among the major salivary glands. Its prevalence rate is 73% of all salivary gland tumors. It has a dual emergence from both epithelial and connective tissue elements, describes its pleomorphic appearance and so it is named as “mixed tumor”.

Though minor salivary glands exist on palate, buccal mucosa, tongue and gingiva, the highest concentration is on the palate and at the junction of hard and soft palate. Tumors which arise from minor salivary glands are predominantly malignant, 40–82% of cases, while benign, like pleomorphic adenoma is rarely seen [1–3]. The palate is the most common site for mixed tumor among all minor salivary sites. Different usual sites are upper lips followed by buccal mucosa, tongue and gingiva [4–6].

Case Presentation

A 60-year-old male patient presented in our outpatient department with chief complaint of painless, slowly progressive swelling on the hard palate since 4 years. Intraoral examination revealed a 5cm X 4cm, oval-shaped, well circumscribed non tender lesion, adherent to the unrevealed bone, coating with smooth intact mucosa but bulging at places, extending from the right alveolar ridge medial surface to the mid-palatal area (Figure 1).

Fine needle aspiration Cytology (FNAC) was suggestive of pleomorphic adenoma. Non Contrast Computed tomography (NCCT) showed a well-circumscribed soft tissue mass lesion on right side hard palate with no underlying bone destruction (Figure 2).

The mass was operated under general anesthesia via peroral route (Figure 3). The mucosa which is not involved around the lesion was distinct and separated from the lesion. The whole tumor mass was separated out along with periosteum from the intact underlying bone, with careful dissection (Figure 4). Hemostasis was achieved. The excised mass was sent for histopathological examination. On the basis of histopathological examination report the diagnosis of pleomorphic adenoma was confirmed (Figure 5). After surgery the patient's postoperative period was comfortable. Postoperative 2 weeks examination showed granulating raw area over palate with epithelialization from surrounding (Figure 6).

Discussion

The prevalence of tumors in small salivary glands accounts for 20–40%. The smaller the salivary gland that is affected, more likely it shows malignant behavior. Most commonly affected age group of patients is fourth to sixth decades, predominantly the females. Mainly it occurs on the hard and soft palate because majority of the minor salivary glands are located in this area.

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*Correspondence:

Manish Gupta, Department of ENT, Maharishi Markandeshwar Institute of Medical Sciences and Research, MMU, Ambala, India.

Tel: 09915025819

E-mail: manishgupta1217@gmail.com

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Figure 1: Intraoperative clinical picture showing a well demarcated swelling occupying right side hard palate.

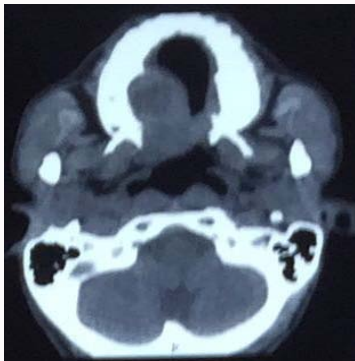


Figure 2: Axial section of noncontrast computed tomogram showing soft tissue mass over right side hard palate.



Figure 3: Intraoperative clinical picture showing mass being separated from underlying bone.

Pleomorphic adenoma usually presents as a progressive slow growing swelling which is asymptomatic and firm in consistency. When arising from palate, it is rubbery or firm submucosal mass without any kind of ulceration.

Diagnosis is based on the history, physical examination, radiological investigation and histopathological examination report. On examination, the differential diagnosis includes palatal abscess, odontogenic or non-odontogenic cyst, soft tissue tumor such as neurofibroma, fibroma, neurilemmoma [7].

Palatal abscess can be excluded by examining because it arises from non-vital tooth in the surrounding defect. The odontogenic and non-odontogenic cysts can be excluded during exploration of mass as it does not revealed its cystic consistency. Myoepithelioma have spindle



Figure 4: Excised gross specimen showing bossellations.

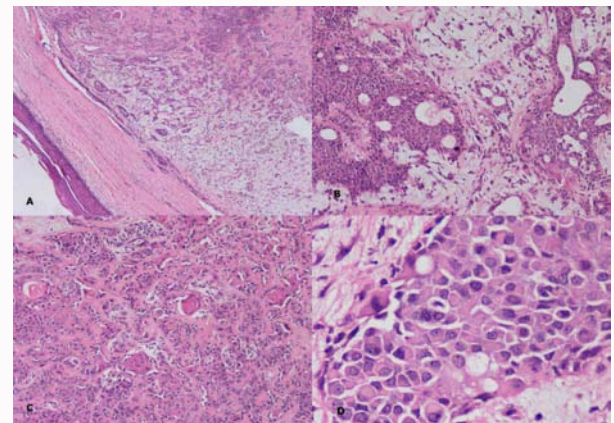


Figure 5: (A) Well circumscribed tumor with a variegated appearance from hyaline in upper field to myxoid in lower field. (B) Areas show tumor cells forming tubules lined by ductal cells and variable thickness. (C) Focus of squamous differentiation with keratinisation is seen amongst plasmacytoid hyaline myoepithelial cells in hyaline stroma. (D) Cells are ovoid with eccentric nuclei and abundant eosinophilic hyaline cytoplasm.

shape cells and is a benign epithelial salivary gland tumor.

Computed tomography scan can reveal about the site, size and extension of tumor in the vicinity of other superficial and deep structures.

Contrast between malignant and benign tumors is not feasible lacking histopathological examination. Histological types of pleomorphic adenoma may vary. Classically it has two phases and is characterized by a both spindle-shaped myoepithelial elements and polygonal epithelial cells in different background stroma which could be mucoid, myxoid, cartilaginous or hyaline [8]. Epithelial elements are arranged in the form of sheet, duct-like structures and spindle shape cells. In “cellular” type of pleomorphic adenoma the epithelial element is dominant and “myxoid” type possess myxomatous element. The classic form is a mixed type. Different epithelial cell types are spindle, clear, squamous, basaloid, cuboidal, plasmacytoid, oncocyctic, mucous and sebaceous [9].

Whole of the tumor is enveloped in a pseudocapsule. The tumor gives off finger-like projections called as pseudopodia through normal glandular parenchyma [10]. Management is by complete wide surgical excision of tumor besides the whole involved periosteum.



Figure 6: Postoperative follow up clinical picture showing granulating wound bed.

Enucleation should be avoided as it can lead to a high recurrence rate.

Minor glands pleomorphic adenomas have less tendency for recurrence. Inadequate technique of surgery accounts for the main factor of failure. 50% tumors of minor salivary glands are described to be malignant, of which the adenoid cystic carcinoma is very common. Pleomorphic adenomas of the minor salivary glands, occasionally lack encapsulations and combine into normal host tissue as tumor growth; therefore a wide excision of tumor is obligatory even if preceding biopsies report benign.

Refashioning of the palate is difficult endeavor. After the excision hard palate can be left as it is for granulation. Bony defects could be managed conservatively by application of obturator over hard palate. Bony defects will lead to both cosmetic as well as functional deformity, so the flap like temporalis flap can be owned for the defect of oral cavity. The main goal which should be kept in mind is to maintaining speech, swallowing and anterior facial projection.

Conclusion

- Mostly tumors of salivary gland must be incised because of the probability of transformation into malignancy.

- Adequate strategy for the treatment of pleomorphic adenomas is wide excision with negative margins because of absence of encapsulation, merging into normal tissue. As chances of recurrence will reduce with wide surgical excision technique.

- A biopsy of the excised specimen should be sent for histopathological examination to support the diagnosis.

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