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# Pleomorphic Adenoma of Palate: A case report

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**ABSTRACT**

Pleomorphic Adenoma (PA) also called as benign mixed tumour is the most common tumour of salivary glands. Intraoral presentation of tumour is comparatively rare with more chances of malignancy. Wide surgical excision with adequate margins is the most preferred mode of management. Histopathological analysis is essential for confirmatory diagnosis. A 62 year old female patient reported with chief complaint of a growth on right side of the throat since 6 years. Growth has gradually increased in size, painless but has difficulty in swallowing because of the same. Examination revealed a growth in relation to junction of hard and soft palate mostly on right side which is firm in consistency and non tender. Growth was excised with primary closure under General anesthesia. Histopathology confirmed the case to be pleomorphic adenoma. Pleomorphic adenoma should be considered in the differential diagnosis of palatal swellings. As the lesion has a tendency for malignancy, careful evaluation of history, examination, histology and follow up is advised.



## Introduction

Pleomorphic adenoma (PA) is the most common tumour of salivary glands (60%). It has been known by variety of names as “Mixed tumour”, “enclavoma”, “endothelioma”, “endochondroma” (1). The most common site of occurence is parotid gland whereas intraorally it involves the minor salivary glands which are most concentrated on palate. Approximately 8% of pleomorphic adenomas involve minor salivary glands, of which 60-65% occur in the palate (1). Other sites of involvement include upper lip (18.5%), buccal mucosa (15%), retromolar trigone (5.4%), floor of mouth (4.9%) and lower lip(3.3%) **(2).** Tumor usually is seen in the age range of 30-50years with slight female predilection. **(3).** Intraoral growth usually presents as a slow growing nodular mass, painless but which may cause difficulty in speech and swallowing. Fine Needle Aspiration Cytology (FNAC) act as a diagnostic aid in these cases whereas the aid of conventional radiography is limited unless suspecting an invasion of bone. Definitive diagnosis can be made only histological evaluation **(4).** The treatment of choice for PA of minor salivary glands is wide excision with removal of periosteum or bone if involved. **(5).**

Here we report a case of PA of palate with emphasis on its clinical features, differential diagnosis and management.

## Case Report:

A 62 year old female patient reported to dental out patient department with chief complaint of a growth on right side of the throat since 6 years. Growth was initially small in size, gradually increased in size and reached the present size. No pain present in relation to the growth but difficulty in swallowing present. On intraoral inspection, a solitary growth oval in shape noted in relation to junction of hard and soft palate on right side, measuring 2x2.5 cms in greatest dimension (Figure 1). Superiorly extending from the junction of hard & soft palate and inferiorly reaching till palatoglossal arch, Medially it crossed the midline about 0.5cms, covering uvula. Laterally extending till a vertical line drawn about 2cms from maxillary tuberosity. On intraoral palpation, Inspectory findings are confirmed and the growth is firm in consistency and non tender. Based on history and clinical examination a provisional diagnosis of benign minor salivary gland neoplasm was given. Differential diagnosis considered was Polymorphous low grade Adenocarcinoma and Warthins tumour.

**Figure 1. Extraoral photograph of the patient.**

Computed tomographic (CT) scan was performed on a sub-second spiral CT scanner and 3mm thin sections were taken. Imaging revealed a well defined polypoid soft tissue lesion seen along the soft palate posteriorly on right side with no bony involvement. Fine Needle Aspiration Cytology (FNAC) was performed and the microscopic examination revealed spindle cells scattered among clusters of round to oval cells with granular chromatin, inconspicuous nucleoli and dense cytoplasm. Few clusters of oncocytic cells and metaplastic squamous cells were seen giving an impression of myoepithelioma. Patient was subjected to excisional biopsy under general anesthesia and the excised specimen was a well encapsulated mass measuring 3x3x2 cms (Figure 2&3). The excised mass was sent for histopathological examination.

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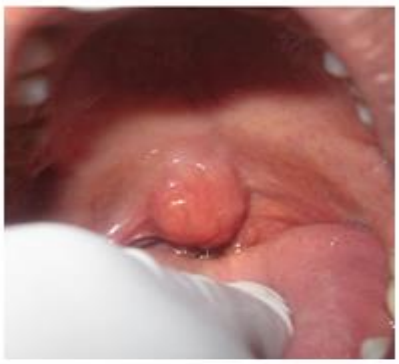

**Figure 2 . Intraoral photograph showing a solitary growth in relation to the palate.**

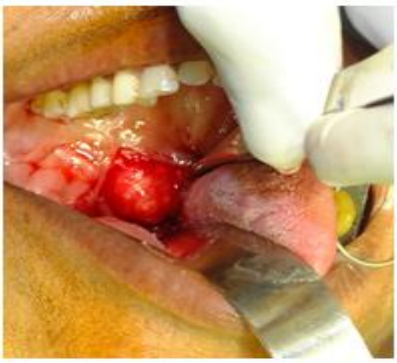

**Figure 3. Excision of the growth with primary closure under General anesthesia.**

Under 10x, heamtoxylin eosin section revealed presence of ductal structures and epitheloid cells. Ductal structures reveal presence of keratin pearls within suggestive of squamous metaplasia (Figure 4). Hematoxylin eosin section under 40x reveals presence of ductal structures with mucin inside containing mucinophages (Figure 5). Based on these findings, a final diagnosis of pleomorphic adenoma of the junction of hard and soft palate was given. There were no post operative complications and the patient is currently under follow up (Figure 6).

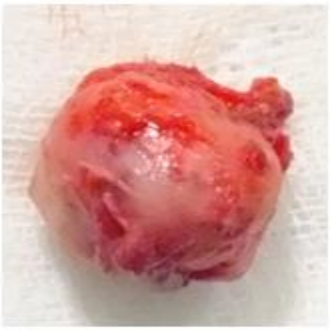

**Figure 4. Well encapsulated mass.**

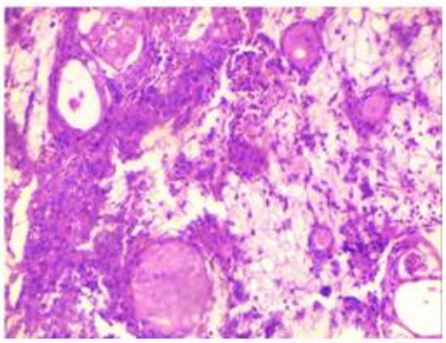

**Figure 5. Hematoxylin eosin section under 10x revealing presence of ductal cells.**

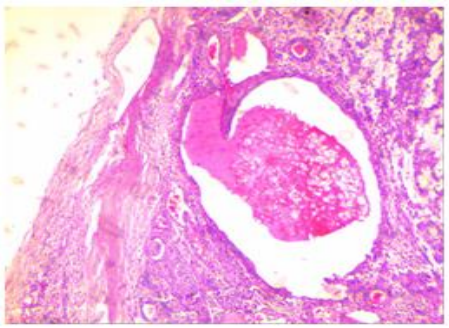

**Figure 6. H & E section under 40x reveals ductal structures with mucin.**

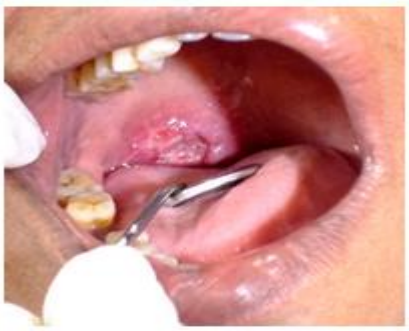

**Figure 7. Post operative photograph on 7th day which reveals good healing.**

**Discussion**:

Pleomorphic adenoma is the most common tumour of salivary glands, particularly parotid. Intraorally, the most common location is palate due to the high concentration of minor salivary glands in this area. Presence of PA has been accounted even in relation to uvula, sinuses, larynx, epiglottis and even external auditory meatus. **(6)**. In our case, clinically the site of occurrence is at the junction of hard and soft palate which is rare for PA as such but common when considering its intraoral presentation. PA of minor salivary gland most commonly presents in $4^{th}$ to $6^{th}$ decade of life with female predominance as seen in our case where the patient is a female of the age of 62years **(7).** Usual presentation of the tumor intraorally is as a slow growing, painless mass which is firm in consistency without ulceration or inflammation **(8)**. The presentations are quite typical in our case. Conventional imaging modality is of limited use in this lesions but advanced imaging modalities such as Computed tomography and Magnetic Resonance Imaging can help in defining the location, extent and invasion of the lesion. Computed tomographic scan can exclude a bony involvement which was followed in our case **(9).**

Differential diagnosis of PA intraorally include palatal abscess, odontogenic and non-odontogenic cyst and soft tissue tumours including lymphoma, lipoma and fibroma as well as other salivary gland tumours can be considered **(10).** Palatal abscess can be excluded if there is absence of a non vital tooth in vicinity or a localized periodontal defect. Fibroma usually occurs in areas of constant irritation or trauma. Lipomas usually have a characteristic yellow colour with positive slip sign. Neurofibroma, neurilemoma and other salivary gland tumours appear identical to PA and this implies the importance of histopathological examination**(11).** In our case, all the above mentioned can be ruled out due to the explanations attached and we considered polymorphous low grade adenocarcinoma and Warthins tumour. Polymorphous low grade adenocarcinoma which is exclusively a tumour of minor salivary glands and occurs most commonly on hard on soft palate with older female

predilection, which appears as a painless mass that may be present for a longer time with slow growth. Secondly, warthins tumour was considered as it is the second most common benign neoplasm of salivary gland though the major location is parotid gland. It also occurs in minor salivary glands as painless, slow growing nodular mass.

Histopathologically, PA is a mixed tumour with complex morphology constituting epithelial and myoepithelial elements in a variety of patterns in a mucopolysaccharide stroma. **(12).** Widely accepted treatment is surgical, local excision of the lesion with wide margins and removal of periosteum or bone if involved**.(13).** In the present case, there is no bony involvement. Recurrence and longevity are risk factors for turning into malignancy **(14).** In our case, patient is currently under follow up.

**Conclusion:**

Pleomorphic adenoma , although is a common tumor, is quite a challenge to oral diagnosticians, surgeons and pathologists. This case report aims to spread awareness among the oral specialists about the occurrence of PA and the need to consider it in the differential diagnosis of lesions of palate. Also, it discusses the need to follow up such cases as there is a risk of recurrence and malignant transformation associated with it.

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