

# Pleomorphic Adenoma of the Palate: A Case Report

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## Abstract

**Pleomorphic adenoma is one of the most common benign tumor affecting the major salivary glands and infrequently arises from the minor salivary glands. It involves the parotid of the major salivary glands and the palate of the minor salivary glands. This article presents a case of pleomorphic adenoma of the palatal minor salivary gland treated successfully by surgical excision.**

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## INTRODUCTION

Pleomorphic adenoma (PA) is a benign mixed tumor composed of epithelial and myoepithelial cells arranged in various morphological patterns, demarcated from the surrounding tissues by a fibrous capsule. PA is a salivary gland tumor that affects both the major and minor salivary glands and accounts for 40% to 70% of all tumors<sup>[1]</sup>. The parotid gland is the most commonly affected major salivary gland. Globally, 13.9% to 51.4% of all salivary gland tumors arise from an intraoral site, and 34.7% to 67.1% of them are benign<sup>[2]</sup>. PA occurs in the fourth, fifth, and sixth decades of life and is found more commonly in women (60%) than in men (40%)<sup>[3]</sup>. Among intraoral salivary glands, PA affects the palate most commonly (42.63%), followed by the lip (10%), buccal mucosa (5.5%), retromolar area (0.7%), and the floor of the mouth<sup>[4]</sup>.

## CASE REPORT

A 19-year-old female patient came to our dental department with the complaint of pain, sensitivity and swelling in the right upper second molar region. History revealed that the patient had a swelling in the palate which gradually increased in size. Her intraoral examination revealed a painless swelling in the palate (right side) which was oval-shaped, circumscribed, measuring about 2.5cm in diameter extending from the mesial aspect of upper right second premolar to distal aspect of the second permanent molar, 4-5mm below the marginal gingiva in the palate till the mid palatine raphe (Figure 1).



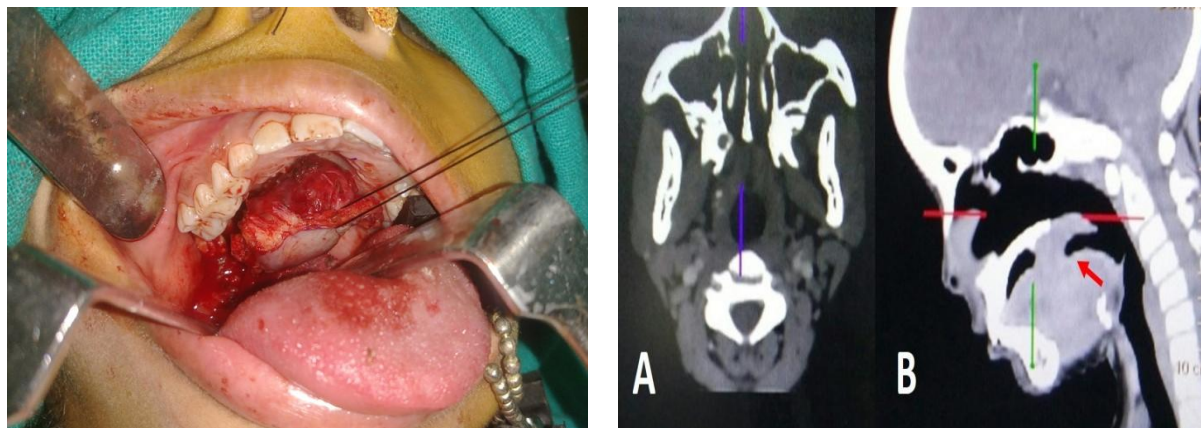
*Figure 1: Pleomorphic Adenoma (Clinical View)*

On Palpation it was smooth, firm in consistency, and fixed to underlying mucosa. The overlying mucosa was not ulcerated but stretched and appeared to be shinier than other aspects of the palate. CT scan and MRI revealed a 19mm × 16mm spherical lesion with a small bone defect in the medial aspect of the alveolus at the level of the first molar region adjacent to the lesion with no evidence of erosion of hard palate or extension into the maxillary sinus or nasal cavity (Figure 3). The nasal septum deviated to the left. The lesion was treated by surgical excision and the excised tissue was sent for histopathological examination which further confirmed the diagnosis.



**Figure 2: Pleomorphic Adenoma (Intraoperative View)**

*Sagittal View*



**Figure 3: CT Scan (A) Axial View (B)**

## DISCUSSION

PAs are derived from a mixture of ductal and myoepithelial elements.<sup>[5]</sup> It is the commonest benign salivary gland tumor; 84% of the PAs occur in the parotid, 8% in the submandibular, and 4–6% in the minor salivary glands.

### Incidence

Females are more affected than males, with a ratio of 2:1. It occurs in the fourth and fifth decades of life, but may arise at any age. PA is the most common benign tumor of the minor salivary glands. The most common site of this tumor is the palatal area (approximately 73%),<sup>[6,7]</sup> followed by upper lip (17%),<sup>[8]</sup> buccal mucosa, floor of the mouth, tongue tonsil, pharynx, and retromolar area. Review of literature reports a few cases of PA arising in the parapharyngeal space. It arises in the oral cavity as a painless, slowly growing, firm swelling, commonly seen on the posterior lateral aspect of the palate, presenting as a smooth, dome-shaped mass.<sup>[9]</sup> Because of tightly bound nature of the hard palate mucosa, it appears to be fixed. While in cases of lips and buccal mucosa, it is freely movable. PA of palate is seldom allowed to

attain a size greater than 1–2 cm in diameter because it causes difficulty in mastication, speech, and swallowing. It is detected and treated earlier than tumors of major salivary glands. <sup>[6]</sup>

If the overlying mucosa is ulcerated and ulceration is not due to any trauma or biopsy, malignancy should be suspected. Computed tomography (CT) scan is the important diagnostic tool of these tumors; <sup>[10]</sup> it helps to determine the extension of the lesion. It cannot invade bone but may lead to a cupped out resorption of bone due to pressure effect.

### Histopathologic findings

It is an epithelial tumor of complex morphology, possessing epithelial and myoepithelial elements arranged in varieties of patterns and embedded in mucopolysaccharide stroma. Formation of the capsule is a result of fibrosis of the surrounding salivary parenchyma which is composed of the tumor and is referred to as false capsule. <sup>[5]</sup> Tumors of hard palate are usually excised down to the periosteum, including the overlying mucosa with 1 cm clinical margins at the periphery. <sup>[7]</sup> Excision of palatal bone is not required as periosteum is an effective anatomical barrier. If the tumor extends to soft palate, the excision includes the fascia over muscles of soft palate. PA generally does not recur after adequate surgical excision. Reasons for recurrence include incomplete excision, seeding, cutting through the microscopic extracapsular projections thereby leaving some tumor behind, or rupture of the capsule and accidental seeding of tumor cells, as is more likely to occur when dissecting close to the capsule. <sup>[10]</sup> Our patient has been followed up for 4 months, has excellent healing with no complaints and no signs of recurrence.

### CONCLUSION

From the present case report, it was concluded that PAs constitute a major part of the benign tumors of the salivary glands. Although it commonly presents in the palate, it rarely exceeds 2 cm in size. The presented case was unique in the size of the tumor, which exceeded due to the delay in reporting. PA could only be diagnosed with the help of biopsy and histopathological investigation. The tumor is encapsulated and is treated with surgical excision including an adequate margin of the normal surrounding tissue. Taking into consideration the recurrence rates reported in literature, it will be wise to have a long follow up.

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### Conflicts of interest

There are no conflicts of interest.

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