

Pleomorphic Adenoma of the Palate: Report of a Case

**Swapnil Moghe¹,
Ajay Kumar Pillai²,
S Prabhu³,
Saksham Nahar⁴,
U K Kartika⁵**

¹Senior Lecturer & MDS in the Department of Oral & Maxillofacial Surgery, Peoples Dental Academy, People's University, Bhopal, Madhya Pradesh, India, ²Reader & MDS in the Department of Oral & Maxillofacial Surgery, Peoples Dental Academy, People's University, Bhopal, Madhya Pradesh, India, ³Professor & MDS in the Department of Oral & Maxillofacial Surgery, Peoples Dental Academy, People's University, Bhopal, Madhya Pradesh, India, ⁴MDS 2nd Year Post Graduate Student in the Department of Oral & Maxillofacial, Surgery, Peoples Dental Academy, People's University, Bhopal, Madhya Pradesh, India, ⁵MDS 2nd Year Post Graduate Student in the Department of Prosthodontics, Crown & Bridge and Implantology, Peoples Dental Academy, People's University, Bhopal, Madhya Pradesh, India

Corresponding Author: Dr. Saksham Nahar, Peoples Dental Academy, Bhopal, Phone - 7869557254.
E-mail: saksham3dec@gmail.com

Abstract

Pleomorphic adenoma is a most common benign tumor which affects the major salivary glands and infrequently arises from minor salivary glands. It is a mixed tumor of salivary gland origin and has elements from both epithelial and mesenchymal tissues. In this case report we are presenting a case of pleomorphic adenoma of hard palate in a 24 year old female patient who reported to our department with complaint of pain less swelling in the palatal region since one year.

Keywords: Minor salivary gland tumor, Palate, Pleomorphic adenoma

INTRODUCTION

Pleomorphic adenoma (PA) is a benign salivary gland tumor which represents about 3-10% of neoplasm of the head and neck region.¹⁻³ They are most common salivary gland tumor occurring mainly in parotid and sub mandibular salivary gland.^{3,4} As far as intra oral salivary gland are concerned, palate (42.63%) is a most commonly affected site followed by lip (10%), buccal mucosa (5.5%), retromolar area (0.7%) and lastly affecting the floor of the mouth.^{1,2,5} It is also called as mixed salivary gland tumor because of its dual origin from the epithelium and myo-epithelial cells.⁵ PA usually present as a mobile slow growing painless firm swelling that does not causes ulceration of the overlying mucosa. But these tumors are known to cause underlying bone erosion.^{2,3}

CASE PRESENTATION

A 24 yrs. old female patient reported to us with the chief complaint of non painful swelling over the right palatal region since last 1 yr. The swelling was slow growing non tender and do not interfere with speech mastication or swallowing. Her past medical and family history

were non contributory. On taking dental history she revealed that she went to a local dentist for the same complain and got her decayed maxillary 1st molar extracted. But as there was no difference in swelling, she reported to institution.

Her intra oral examination revealed a single oval shaped, circumscribed lesion which approximately measures 2 × 3 cms, extending from 5-6 mm from the marginal gingiva in relation to right maxillary second molar till the mid palatine region. The over line mucosa was not ulcerated but was stretched and appears to be more shining in comparison with other aspects of the palate. The lesion was firm and fixed to underline structure (Figure 1). There was no regional lymphadenopathy and nasal examination was within normal limits. The radiography of maxilla by occlusal radiograph and CT Scan (Figure 2) did not show any evidence of bony invasion or perforation.

A differential diagnosis of odontogenic cyst/minor salivary gland tumor were considered. Other lesions like kaposi's sarcoma, syphilitic gumma and intra oral molluscum contagiosum were also consider. Fine needle aspiration cytology (Figure 3) suggested benign tumor with features characteristic of PA.

TREATMENT & FOLLOW UP

The patient was operated under GA. After nasotracheal intubation, mouth gag was placed in the opposite side of the posterior molars to increase the access for the lesion in the palate. A good visibility and accessibility is the key for complete excision of the lesion. Local anesthetic solution containing 1:200000 adrenaline was infiltrated around the lesion to achieve Vasoconstriction. Mucosa around the lesion was marked & wide excision of the lesion including the periosteum was done (Figure 4) with surgical blade & dissecting scissors. Hemostasis was achieved with electrocautery. The residual site was covered with periodontal pack. Dressing was removed 4 days post operatively. Regular oral irrigation was done with Chlorhexidine to maintain good oral hygiene. In 3-4 week time the donor site granulated & healing was uneventful.

The excised mass (Figure 5) was sent for histopathological examination which further confirmed our diagnosis.



Figure 1: Intra oral view of swelling in the right side of the plate not crossing the midline

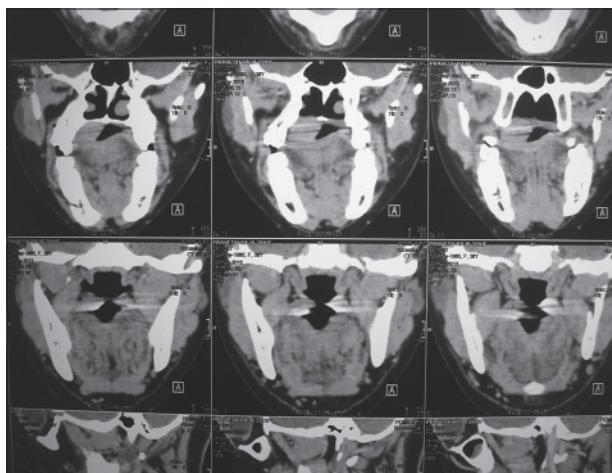


Figure 2: CT Scan reporting no erosion or perforation of palate

Patient was on follow up for one year without any sign of recurrence (Figure 6).

DISCUSSION

There are numerous malignant and benign tumor arises from major and minor salivary gland. PA is a most common benign tumor of salivary gland whereas mucoepidermoid carcinoma is a most common malignant counterpart to be encountered in maxillofacial region.²

Spiro RH⁶ in his study of 2078 patients with salivary gland neoplasia reported that 20-40% of all salivary gland tumors arise from minor salivary glands. The mixed minor salivary tumors affects mostly patients in their fourth o sixth decades of life.^{3,4} Though it has been reported to affect both the sexes, slight predilection for female gender has been reported.^{5,8}

Intraoral PA appears as unilateral slow growing non tender firm mass that may become large if untreated. Though it

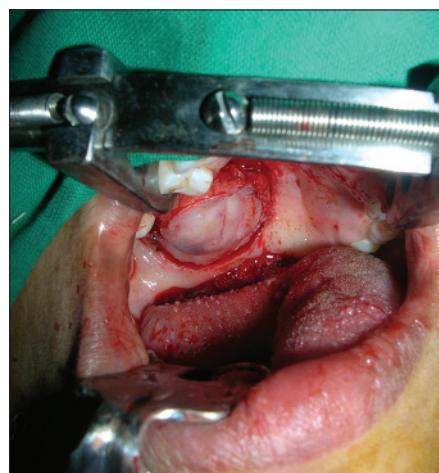


Figure 3: Wide excision of the lesion

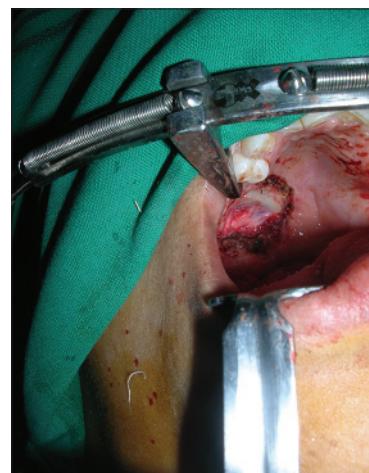


Figure 4: Intra operative view



Figure 5: Excised specimen

is a benign tumor, it has been reported of having locally aggressive behavior due to lack of the presence of fibrous capsule. These tumors also invade & erode adjacent bone causing radiolucency & mottling on the X-rays of the maxilla.

In the present case the patient also complained of unilateral slow growing non tender swelling in the junction of hard & soft palate. The diagnosis of PA is established on the basis of history, physical and histopathological examination. Plain X-ray and hematological investigation plays no part in the diagnosis of minor salivary gland tumor.² Radiograph of maxilla like occlusal view helps by showing the extent of bony erosion or tumor invasion. C.T scan may be helpful in evaluating the erosion of the palate and assess the extension of tumor into the nasal cavity or to the sinus. A histopathological diagnosis is essential for a confirmatory diagnosis.

The differential diagnosis PA includes palatal abscess, odontogenic and non odontogenic cyst, soft tissue tumors like lymphoma, lipoma, fibroma as well as other salivary gland tumors. In the present case, presence of a nonvital maxillary right first molar adjacent to the lesion might be the cause of misdiagnosis by the dentist.

Histopathologically the tumor are composed of island of stellate and spindle cell that are interspersed in a myxoid background.

Simple enucleation of the tumor has been reported with high recurrence. Therefore the treatment of benign minor salivary gland tumors is wide surgical excision^{1,2,4,7} with removal of periosteum and under lying bone if found to be involved.^{7,8} Many authors had advocated wide surgical excision with curettage of the underlying bone with a surgical curette or bur.²



Figure 6: Follow up after one year post operatively showing healing

Reconstruction of the palate should be considered for functional and aesthetic point of view. The soft tissue defect of the palate can be left to granulate, whereas the hard tissue defect can be corrected with the help of obturator. In the present case, the patient did not require any reconstruction as the palatal mucosa regenerated without any formation of fistula.

CONCLUSION

Since the majority of minor salivary gland tumors are reported to be malignant, careful history, patient evaluation, histopathological and radio imaging is advised. With adequate surgical excision the tumor usually does not recur, but most recurrences can be attributed to inadequate surgical technique. A long term follow up is warranted because of the recurrence even after several years of initial excision.

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