

PLEOMORPHIC ADENOMA OF THE PALATE: A CASE REPORT

Saavi,¹ Himanshu Punia ²

Reader,¹ Post Graduate Student ²

1. Department of Oral Medicine & Radiology, Kothiwal Dental College & Research Centre, Moradabad.

2. Department of Public Health Dentistry, Teerthanker Mahaveer Dental College & Research Centre, Moradabad.

Abstract

Pleomorphic adenoma is the most common mixed benign tumor of the salivary glands that has elements of both epithelial and mesenchymal tissues. Approximately 80% of these tumors arise in the parotid gland, whereas 7% arise in the minor salivary glands. The most common sites for minor salivary gland where pleomorphic adenoma arises are the palates followed by lips and cheek. It appears as a painless firm mass and, in most cases, does not cause ulceration of the overlying mucosa. Pleomorphic adenoma of parotid salivary gland generally affects the superficial lobe of the gland. It sometime affects 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 encountered a pleomorphic adenoma 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.

Key Words: Hard Palate, Minor Salivary Gland Excision, Pleomorphic Adenoma

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 tumours. Pleomorphic adenoma is a benign salivary gland tumor that exhibits wide cytomorphologic and architectural diversity. The tumor has the following 3 components:

1. An epithelial cell component
2. A myoepithelial cell component
3. 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.¹

Among all salivary gland tumors, pleomorphic adenoma is the most frequently encountered lesion, accounting for approximately 60% of all salivary gland neoplasms. It also ranks as the most common salivary gland neoplasm in children, representing 66-90% of all salivary gland tumors. Pleomorphic adenoma which is the most common salivary gland tumor predominantly occurs in the parotid gland. As far as the intraoral salivary gland tumors are concerned, pleomorphic adenoma also ranks as the most frequently encountered lesion.

Palate is the most common affected site. The second most common site is the upper lip followed by buccal mucosa. Other intraoral sites include upper lips, buccal mucosa, tongue and gingiva.² Among the benign 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. In most cases, does not cause ulceration of the overlying mucosa.³

We aimed to present a case of pleomorphic adenoma present on the hard palate.

Case Report

A 20 year old female patient reported to the department of oral medicine and radiology in Kothiwal Dental College and research centre with a painless swelling on the left side of hard palate since last 8 months. The swelling was small about a size of peanut initially & gradually enlarged to the present size. It was symptomatic associated with pain and discomfort during chewing. No history of any other similar swelling elsewhere in the body. No other relevant significant past medical and dental history.

The personal history of the patient did not reveal any history of chewing tobacco, smoking, betel nut chewing or any other addiction. There was no family history of similar complaints. The patient did not take any treatment for the above complaints and presented for the first time in our hospital for the similar complaints.

General examination reveals normal and stable vital parameters, cooperative well oriented with time and place. On extra oral examination face appears to be bilateral symmetrical, lips were competent and no other abnormality was detected. There was no regional lymphadenopathy. (Figure 1)



Figure 1: - Extra Oral View

On intraoral examination of swelling demonstrate a well-defined oval shaped swelling on the left side of the hard palate in relation to 26, involving the marginal gingiva which is approx. 1.5 x 1.5 cm in diameter. The mucosa over the swelling appeared to be slight erythematous with well-defined borders and surrounding mucosa appears normal. (Figure 2)



Figure 2: - Intra Oral View of the Lesion

On palpation it was non tender, firm in consistency, non-compressible, non-reducible did not show any fluctuation or pus discharge and fixed to underlying structure. There was no tooth displacement associated or mobility of tooth adjacent to the lesion. Intraoral peri-apical radiograph reveals no carious involvement of tooth, no bone involvement and showed normal trabecular pattern. All blood counts were within normal limits. The probability of other clinical diagnosis of palatal abscess was completely ruled out. Excisional biopsy was performed under local anaesthesia & sent for histo-pathological examination. (Figure 3)

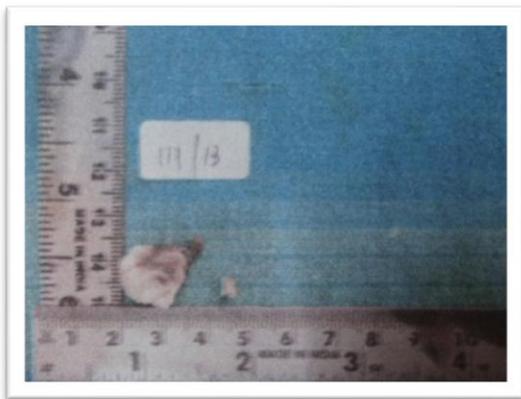


Figure 3: - Excised Biopsy

The tumor demonstrates combination of glandular epithelium & mesenchyme like tissue. The epithelium is stratified squamous in nature & forms duct. Minor salivary acini & dilated ducts can also be appreciated. Myoepithelial

cells have variable morphology. Myxoid areas & basophilic calcified areas are also encountered. (Figure 4)



Figure 4: - Histopathological View

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 glands. 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. The term pleomorphic describes the embryogenic basis of origin of these tumors, which contains both epithelial and mesenchymal tissues. It has been postulated that these tumors arise from intercalated and myoepithelial cells.^{1,2}

The parotid glands are most commonly involved (56.7%), followed by the submandibular glands (31.1%), the palatal minor glands (8.9%), and the buccal minor glands (3.3%). A relatively high proportion of tumors arising from minor salivary glands are malignant (almost 50%). It is stated that the smaller the gland, the greater the likelihood of malignancy for a salivary gland tumor.³

Muco-epidermoid carcinoma is the most common malignant salivary gland tumor, while pleomorphic adenoma is the most common benign counterpart. Pleomorphic adenoma of the palate is rare. Patients with pleomorphic adenomas of the minor salivary glands present mostly in fourth to sixth decades, with a slight predominance in females. They usually present as a unilateral, painless, slow-growing mass in the parotid gland. However, when they originate in the hard and soft palate they present typically as a firm or rubbery submucosal mass without ulceration or surrounding inflammation.⁴

The histological pictures of pleomorphic adenomas vary. Pleomorphic adenomas of the extra major salivary glands are similar to those in the major salivary glands and are composed of a mixture of epithelial and stromal elements. Three main histologic subgroups have been identified:

myxoid (80% stroma), cellular (myoepithelial predominant), and mixed (classic) type.⁴

The treatment of pleomorphic adenoma is essentially surgical. Though these tumors are apparently well encapsulated, resection of the tumor with an adequate margin of grossly normal surrounding tissue is necessary to prevent local recurrence as these tumors are known to have microscopic pseudopod like extension into the surrounding tissue due to dehiscence in the false capsule. Pleomorphic adenoma is treated by local excision with 0.5 to 1 cm margins. Enucleating will lead to recurrence. Except in the case of larger neglected tumors, reconstruction may be by primary or secondary healing or the use of local flaps. Bony excision is usually not required, as pleomorphic adenoma does not invade bone, although it may cause pressure resorption. The prognosis will be excellent if resection is adequate.

A recurrence rate of 2 to 44% in the pleomorphic adenoma (mainly of the parotid gland) has been reported in the literature. Irradiation is reserved for recurrences and inoperable cases.

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. The risk of malignancy increases with the duration and mean age of the patient.^{4,5}

Regular follow up is required to detect local recurrence and malignization.

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Correspondence Address: -

Dr.Saavi

Post Graduate Student

Department of Oral Medicine

Kothiwal Dental College & Research Centre,

Moradabad

Email Id: - drhimanshupunia2280@gmail.com