

Pleomorphic Adenoma of Palate: A Case Report

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ABSTRACT

Salivary gland tumors are a relatively rare and morphologically diverse group of lesions. Pleomorphic adenoma is a benign tumor of the salivary gland that consists of a combination of epithelial and mesenchymal elements. The tumor most commonly arises from the parotid (60-70%) or submandibular glands. Intraorally palate is the common site followed by lips and buccal mucosa. It develops less frequently in a minor salivary gland, presenting as an intraoral mass present on the palate. Here, we present a case of pleomorphic adenoma of the palate with pain. The clinical, histopathological aspects, and treatment of tumor are discussed in the present paper.

Keywords: Mesenchymal elements, Minor salivary gland tumor, Palate, Pleomorphic adenoma, Ulcerations

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INTRODUCTION

In head and tumors, salivary gland tumors account less than 4%.¹ Pleomorphic adenoma is the most common salivary gland neoplasm, which is a benign tumor and mucoepidermoid carcinoma is the most common malignant salivary gland tumor.² Pleomorphic adenoma comprises a mixture of ductal and myoepithelial cells with more cellular elements less of myxoid and chondroid components.³ Various ultrastructural studies have confirmed the presence of myoepithelial and ductal cells. Intraorally palate is the most common site followed by lips and buccal mucosa.⁴ Some rare sites of occurrence are throat, retromolar area, floor of mouth, and alveolar mucosa.²

Extraorally, the parotid gland is the most common site followed by the submandibular gland.⁵ These tumor accounts for 53-77% of parotid tumors, 44-68% of submandibular tumors, and 33-43% of minor gland tumors.³ Pleomorphic adenoma is more commonly seen in females. Pain, tenderness, and ulcerations are unusual manifestations in pleomorphic adenoma.⁶ Intraorally these tumors are slow growing unilateral with palpable rubbery masses. In general, this tumor is mobile except

on the palate. When it increases in sizes it becomes less mobile.⁷

Tumors, which are present on the palate can cause difficulty in mastication. These tumors vary in size. If the tumor is not excised, it can increase in size.^{2,8} Ulcerations are rarely present on the palate. Malignant type of pleomorphic adenoma known as carcinoma ex-pleomorphic adenoma, which is a rare variant.^{2,9} Diagnosis is made on the basis of history, clinical examination, laboratory investigations, and radiographs. Histological diagnosis is also very essential in planning the treatment.⁸ Conventional radiographs like maxillary occlusal help in showing bony invasion. Computed tomography (CT) and magnetic resonance imaging can be used to see the bony invasion, erosions, extensions, and surrounding areas of the lesion. Magnetic resonance imaging is advantageous as there is no radiation exposure to the patient.²

Fine-needle aspiration (FNA) biopsy should be performed before surgery. The treatment for pleomorphic adenoma is surgical excision. If a pleomorphic adenoma is located on the parotid gland, superficial parotidectomy is the treatment and if the tumor is located on the deep lobe

total parotidectomy is the treatment choice. Facial nerve is preserved.³ Pleomorphic adenoma is a benign tumor lack capsule. Recurrence occurs if complete excision of the tumor is not carried. Enucleation also results in recurrence.^{1,10} Reconstruction is required in case of large tumors. The goal of surgical treatment for pleomorphic adenoma includes maintaining speech mastication and esthetics of the patient.

CASE REPORT

A 49-year-old male patient reported to our department with a complaint of growth in the left roof of the mouth since 1-year (Figure 1). Patient was apparently normal 1-year back, and then he noticed swelling on the left side of the palate, which was of marble size initially and slowly progressed to present size. The patient used to rub the surface of growth with ghee as a homemade remedy. Intake of hot and spicy food caused burning sensation. No history of pain or paresthesia. On intraoral examination, there was pus discharge from 26. On local examination, solitary dome shaped swelling was present on the palate about 5.5 cm × 4 cm extending anteroposteriorly from 24 till the maxillary tuberosity and mediolaterally from mid palatine raphe to the attached 26, 27, 27 (Figure 2).

Multiple pink color papules were present medially to the swelling. Surrounding mucosa appeared to be normal. Slough was present at the center of the lesion. Crater like the rim was present 0.5 cm away from the center. All the inspectory findings were confirmed.

Swelling was tender on palpation, firm in consistency. Sessile in nature, edges were defined Surface was smooth, mildly compressible, non-fluctuant, and fixed. The center swelling was ulcerated with everted edge, and bleeding was absent. The base of ulcer was not



Figure 1: Extra-oral picture

indurated. Based on history and clinical examination a provisional diagnosis of neoplasm arising from minor salivary gland was given. Incision biopsy showed features of pleomorphic adenoma. CT scan was advised; it revealed ill-defined soft tissue density in the left palate with scalloping of the palate and alveolar margin of the maxilla (Figure 3). Adenoid cystic carcinoma and mucoepidermoid carcinoma were considered in the differential diagnosis. The Excisional biopsy showed features of pleomorphic adenoma (Figure 4). Wide conservative excision of the lesion and extraction of 23, 24, 25, 26, 27, 28 was done (Figure 5). The patient was followed up for 6 months and no recurrence and the malignant transformation was seen (Figure 6).

DISCUSSION

Minor salivary gland tumors accounts for 22%, and greater part occurs as malignant. Minor salivary glands are located in all parts of oral cavity ranging around

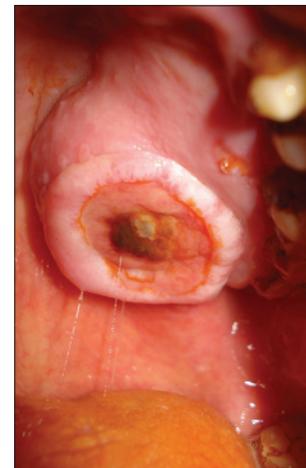


Figure 2: Dome-shaped swelling with ulceration

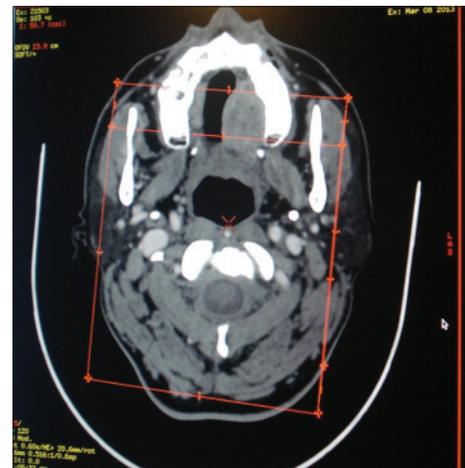


Figure 3: Ill-defined soft tissue density on palate.

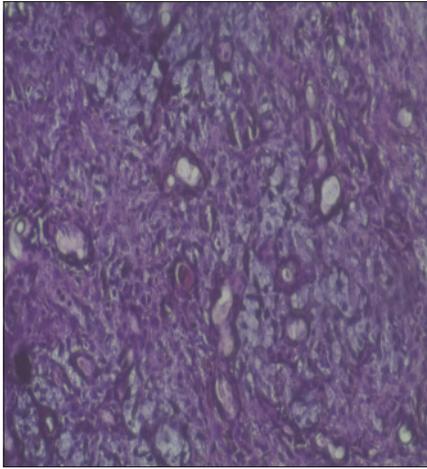


Figure 4: Stromal cells



Figure 5: Operative picture



Figure 6: Postoperative picture

750 in number. Most of the glands are present at the junction of hard and soft palate. Palate is the most common site followed by lips and buccal mucosa. Pleomorphic adenoma is a mixed salivary gland tumor;

it is composed of epithelial and myoepithelial cells. Pleomorphic adenoma occurs more in females, and the incidence is a third to sixth decade. The majority of palatal tumors are found on the posterolateral aspect of the palate, unilateral presenting as smooth surface, dome-shaped masses rubbery in consistency. As the tumor increases in size, it becomes immovable. This case presented with pain, tenderness and ulcerations, which are otherwise unusual findings in pleomorphic adenoma.¹

Pleomorphic adenoma is a well-circumscribed tumor encapsulated tumor lack of the capsule is more commonly seen in minor salivary gland tumor; capsule can be incomplete or show infiltration of cells.³ Various investigations help in diagnosing the tumor. FNA cytology and core needle biopsy (bigger needle comparing to FNA) are some of the few sampling procedures for histopathology examination.

Histology

The histologically tumor shows the mixture of glandular epithelium with loosely organized undifferentiated cells in the background. The epithelium usually presents as ductal, and cyst-like structures or they can also form islands or sheets. Mucous producing cells and keratinizing producing cells may or may not be seen. Myoepithelial cells may have an angular or spindle like presentations, they may also be presented as rounded cell with an esentric nucleus, and they have a striking resemblance with plasma cells. Stromal changes, which are highly characteristic for this tumor is believed to be due to the myoepithelial cells. Sometimes salivary gland tumors are composed of myoepithelial cells almost completely, with absence of ductal elements and are called myoepithelioma.^{2,9}

Treatment

The treatment for pleomorphic adenoma is wide local surgical excision. Prognosis is excellent. The risk of recurrence is low in case of pleomorphic adenoma.¹⁰ Malignant transformation is around 5% in most of the cases.³ If a tumor ruptures there is a chance for recurrence. Hard tissue defect of the palate can be treated using obturators, and soft tissue defect can be left to heal.

CONCLUSION

Pleomorphic adenoma is benign tumor affecting major and minor salivary gland. Early diagnosis and surgical excision result in complete cure with less or no morbidity rather than late diagnosis and extensive surgery. The regular follow-up has to be done to see recurrence and malignant transformation.

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