

# PLEOMORPHIC ADENOMA OF THE HARD PALATE — A CASE REPORT

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## ABSTRACT

Pleomorphic Adenoma is a benign tumor of the salivary glands that has elements of both epithelial and mesenchymal tissues. The tumor most commonly arises in the parotid or submandibular glands. Infrequently, it may arise from the minor salivary glands and present as an intraoral mass over the palate or lip. We reported a case of pleomorphic adenoma of palate in 45 years old female patient, who visited the department of Oral Medicine and Radiology, Sundernagar with chief complaint of painless swelling in palatal area since one year. Incisional biopsy revealed features of pleomorphic adenoma and surgical treatment for tumor was rendered and no recurrence has been reported till date.

**Key words:** Pleomorphic adenoma, Palate

## INTRODUCTION

Salivary gland tumors accounts for less than 3% of head and neck tumors. They are more common in adults than in children.<sup>1</sup> Among all the salivary gland tumors, pleomorphic adenoma is most commonly encountered lesion accounting for approximately 60% of salivary gland tumors. Most salivary gland tumors occur in major salivary glands, especially in parotid gland. As for as intraoral salivary gland tumors are concerned, pleomorphic adenoma also ranks most frequently encountered lesion. Palate is most commonly affected site followed by upper lip and buccal mucosa respectively.<sup>2</sup>

## CASE REPORT

A 45-year-old female patient visited the department of oral medicine and radiology with

c/o swelling in right maxillary posterior region which had duration of one year. History revealed that patient noticed this swelling one year back and is gradually increasing in size. Swelling was painless and not associated with any ulceration and discharge. There was no preceding history of trauma and her past medical history was unremarkable. The general health of the patient is preserved. On examination a 1.5x2 cm sized, firm, non-tender, circumscribed lesion in the relation to 16, 17, 18 region of hard palate was observed. Fig (1).

It was adherent to the underlying structures and overlying mucosa was intact and pink in color. There was no regional lymphadenopathy and her nasal examination was within normal limits. General physical and systemic examination was



Fig 1 – Pleomorphic Adenoma in right posterior region of hard palate



Fig 2 - Radiograph showing no bony invasion

also normal.

A clinical differential diagnosis of odontogenic cyst or minor salivary gland tumor, was considered. An incisional biopsy revealed a benign tumor having characteristic features of pleomorphic adenoma on histopathologic examination. Radiograph of maxilla (occlusal view) did not show bony invasion. Figure (2).

The entire tumor was excised with a wide margin and the underlying bone was drilled out. Fig (3) and fig (4). There has been no recurrence for 6 months during follow up.

### DISCUSSION

Pleomorphic adenomas are usually painless, slow-growing tumors; however, some cases exhibiting rapid growth have been reported.<sup>3,4,5</sup> The term pleomorphic describes the embryogenic basis of origin of these tumors, which contains both epithelial and mesenchymal tissues.<sup>6</sup> It has been postulated that these tumors arise from intercalated and myoepithelial cells. Most cases of palatal pleomorphic adenoma cause only a bulge in the palatal mucosa, but some cause an erosion of the palatal bone as well.<sup>3, 7</sup> These adenomas usually present as asymptomatic submucosal swellings although a few cases have exhibited ulceration and bleeding, usually resulting from trauma. The tumor presents morphologically diverse features, however, both epithelial and mesenchymal elements must be present for diagnosis.<sup>1, 2</sup> Histopathology reveals a tumor composed of islands of stellate and spindle cells that are interspersed in a myxoid background. The pleomorphic nature is determined by an inner layer of epithelial cells and an outer layer of myoepithelial cells arranged in a variety of patterns associated with scant or

abundant stroma. Variation may include squamous metaplasia, calcification, cartilage-like tissue, oxyphilic cells and rarely malignant transformation.<sup>7</sup>

Plain x-ray and hematologic investigations play no part in the diagnosis of salivary gland tumor of the palate.<sup>8</sup> The noninvasive diagnostic aids for salivary gland tumors include ultrasound, CT, and magnetic resonance imaging (MRI). These are useful methods in determining the size of the lesion as well as verifying any bony involvement. CT and MRI both provide important information on the location, size, and extension of the tumor into the surrounding superficial and deep tissues. CT is superior to MRI in evaluating bone, especially in diagnosing erosion and perforation of the bony palate and possible involvement of the nasal cavity or maxillary sinus.<sup>8,9</sup> MRI, with its high resolution for soft tissue, provides better definition of the vertical and inferior tumor extension through its multiplanar capacity and the tumor–muscle interface<sup>9</sup> and more clearly indicates the degree of encapsulation.<sup>8</sup> Another advantage of MRI over CT is the absence of exposure to radiation and intravenous contrast medium. Treatment of palatal pleomorphic adenoma involves wide local excision of the tumor by careful dissection of the palatal mucosa from the encapsulated mass, including its surrounding capsule, together with clear margins involving the periosteum and associated mucosa, followed by curettage of the underlying bone with a sharp spoon or bur under copious sterile normal saline irrigation, to avoid recurrence.<sup>3, 4</sup> These tumors usually do not recur after adequate surgical excision. Most recurrences can be attributable to inadequate surgical



Fig 3 Tumor outline demarcated.



Fig 4 Excised Mass



Fig 5 showing post operative healing

techniques such as simple enucleation leaving behind microscopic pseudopod-like extensions.

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