

Pleomorphic Adenoma of Hard Palate: A Case Report and Review of Literature

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Pleomorphic adenoma is a benign mixed tumor, which is composed of myoepithelial and epithelial cells. A fibrous capsule separates these cells from the surrounding tissues. Pleomorphic adenoma has unusual histopathologic features. It is the most common benign tumor affecting both major and minor salivary glands. Parotid salivary gland is affected mostly in the major group, and palate is the most common site affected in minor salivary glands. The upper lip is the second most common site followed by buccal mucosa. Less than 3% of the salivary gland tumors account for head and neck tumors. In few cases, benign pleomorphic adenoma may turn malignant also. In this case report, a female patient aged 32 years who reported with a complaint of painless swelling in the palate is presented.

Keywords: Benign mixed tumor, Hard palate, Minor salivary gland, Pleomorphic adenoma

INTRODUCTION

Pleomorphic adenoma is also called as benign mixed tumor. Minor salivary gland tumors are rare clinical entities, representing 10-25% of all the tumors of salivary glands.¹ Pleomorphic adenoma accounts for approximately 60% of all salivary gland neoplasms.² Palatal adenoma occurs mostly in the palate followed by upper lip and buccal mucosa.³ Pleomorphic adenoma of the parotid gland may cause atrophy of the mandibular ramus. Intra-orally it may also occur at the floor of the mouth, retromolar area, and pharynx. This tumor is always mobile except when it occurs in the palate. Pleomorphic adenomas can occur at any age, even in the newborn.⁴ However, patients in their fifth and sixth decades of life are commonly affected, and 60% of them are women. Malignant degeneration of this tumor is a potential complication. Here, a case of benign pleomorphic adenoma of the palate in a 32 years female patient is reported.

CASE REPORT

A 32 years female reported with a slowly growing palatal mass, which was present for the past 6 months (Figure 1).

The swelling was painless, but the patient had a problem while swallowing which prompted her to seek specialist's intervention.

Patient had no relevant medical and family history. Intraoral examination revealed a swelling in relation to the hard palate measuring 1.5 cm × 2 cm approximately extending 8 mm from the marginal gingival in relation to left maxillary second premolar till the mid palatine region. The mucosa overlying the swelling was normal with no secondary changes.

The swelling was non-tender, firm in consistency, non-fluctuant, non-compressible, and without any pus or discharge on palpation (Figure 2). Occlusal radiograph



Figure 1: Intraoral view of the swelling

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revealed mild bony erosion of the palate. After proper investigations and fitness required for surgery under general anesthesia were done. Informed written consent was obtained. The patient was operated under general anesthesia. Nasotracheal intubation was done.

Extra oral skin was prepared using povidone-iodine solution. Intraoral mouth preparation was also done using betadine solution with throat pack in place. Mouth prop was placed on the opposite side to facilitate adequate mouth opening and proper vision and exposure of the surgical site (Figure 3). Local anesthesia with 1:200,000 adrenaline was infiltrated around the swelling to achieve vasoconstriction.

Wide excision of the lesion including the periosteum was done with curettage of the underlying bone (Figures 4 and 5). Cautery and dissecting scissors were used for the excision. Electrocautery was also used to achieve hemostasis. Simple enucleation of the tumor has been reported with a high rate of recurrence in the literature. Hence, the treatment commonly employed is wide surgical excision with the removal of periosteum and underlying bone, if involved.^{5,6}

Some authors had advocated wide excision with curettage of the involved bone using surgical curette or bur.⁷

Excised mass was sent for histopathological examination which confirmed it as pleomorphic adenoma of the hard palate. The residual site was covered with chlorhexidine dipped gauze pack, and this pack was removed after 4 days. Chlorhexidine irrigation was done to maintain proper oral hygiene. Postoperative medications were advised. Granulation of the site took place in 3rd week postoperatively and healing was uneventful. Patient was followed up at monthly intervals up to 1 year with no signs of recurrence (Figures 6 and 7).

DISCUSSION

Major and minor salivary glands are the site for various benign and malignant tumors. Mucoepidermoid carcinoma is the most common malignant tumor affecting the maxillofacial region with pleomorphic adenoma as its benign counterpart.⁷



Figure 2: Firm swelling without any pus discharge



Figure 4: Outline of the excised mass



Figure 3: Mouth prop in place



Figure 5: Residual site after surgical excision and bony curettage



Figure 6: Five days postoperative healing

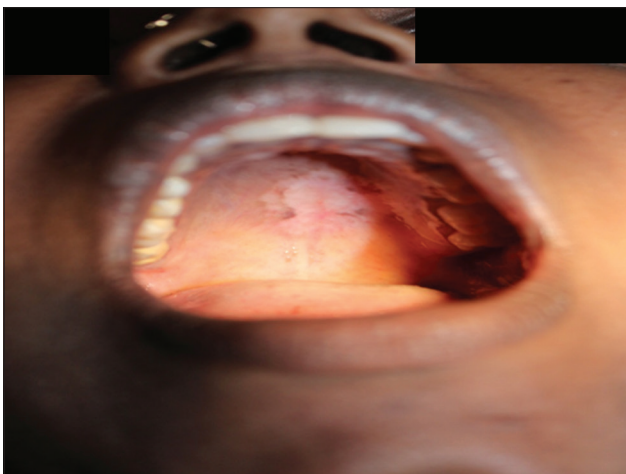


Figure 7: Two months postoperative

Literature reveals a study on 2078 cases of salivary gland neoplasm, which has shown 20-40% of all salivary gland tumors to arise from minor salivary glands.⁸ Patients with pleomorphic adenoma of the minor salivary glands are in their fourth to sixth decade of life with slight female predominance.⁹ The differential diagnosis may include palatal abscess, odontogenic, and non-odontogenic cysts, etc. Palatal abscess, which typically is due to a carious, non-vital tooth or a tooth with the periodontal defect was not found and moreover; there were no signs of inflammation in this case. Diagnosis of the cyst was ruled out due to a non-cystic demonstration of the swelling on palpation.

This benign tumor is reported to have locally aggressive behavior due to the absence of the fibrous capsule. These tumors involve and erode the adjacent bone leading to radiolucent and mottled appearance on maxillary X-rays. Radiograph of maxilla like occlusal view is of help as it shows the extent of bony invasion of the tumor.

The treatment of choice for pleomorphic adenoma should be wide local excision with the removal of periosteum or bone if they are involved. Simple enucleation of this tumor may lead to high recurrence rate and should be avoided.¹⁰

Palatal reconstruction is considered in cases of large palatal defects arising after surgical excision in very aggressive tumors. In the present case, the patient did not require any reconstruction of the palate as the bony invasion was minimal which lead to regeneration of the palatal mucosa without any fistula formation.

CONCLUSION

Since the majority of malignant neoplasms arise from minor salivary glands, it is therefore advised to evaluate the patient, note the detailed history and investigate the case radiographically and histopathologically. Inadequate surgical excision of this tumor has shown high recurrence rates, so it is advised to excise adequately the lesion and curette the bone if involved with the removal of the underlying periosteum. Postoperatively patients should be kept under observation for longer durations, as it is known to reoccur even after several years of initial excision.

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