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Pleomorphic Adenoma of Hard Palate: A Case Report

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ABSTRACT

Pleomorphic adenoma (PA) is the most common salivary gland tumor, accounting for about 40–70% of all major and minor salivary gland tumors. The commonest sites for intraoral PA are palate, buccal mucosa and lips. Palatal PA presents clinically as a painless, slow-growing mass found on posterior lateral aspect. The aim of this article is to present a case of palatal PA, which was treated successfully by surgical excision.

KEYWORDS Palate, pleomorphic adenoma, surgical excision, surgical obturator

INTRODUCTION

Pleomorphic adenoma (PA) can be defined as a benign mixed tumor composed of epithelial and myoepithelial cells arranged with various morphological patterns, demarcated from surrounding tissues by fibrous capsule. PA (mixed benign tumor) is one of the salivary gland tumors affecting both major and minor salivary glands and accounts for 40–70% of all tumors. [1] Parotid gland is the most commonly affected of the major group, and palate is the most common site of the minor salivary glands affected. Other intraoral sites of this tumor are the lip, buccal mucosa, floor of the mouth, tongue tonsil, pharynx, and retromolar area. The aim of this case report is to present histopathologically diagnosed PA of palate in a 20-year-old female.

CASE REPORT

A 20-year-old female patient reported with the complaint of a gradually increasing, painless swelling on the right side of posterior palate since 3 years. The patient's medical history was insignificant. The patient also gave a history of trauma to the swelling while chewing hard food stuffs resulting in formation of an ulcer over the swelling. Intraoral examination revealed a solitary dome-shaped swelling measuring about 2 × 3 cm present on the right posterolateral aspect of hard palate. The surface was smooth (Figure 1). On palpation, the swelling was firm, nontender, and fixed to the underlying tissues. A panoramic radiograph and CT was taken which revealed no evidence of bone involvement. Based on history and clinical findings, a provisional diagnosis of minor salivary gland tumor was given. An incisional biopsy of the lesion was performed and histopathologic examination revealed tumor cells arranged in nests, ducts and sheets surrounded by parallel arrangement of collagen fibers suggestive of a capsule. The stroma appeared fibrocellular with eosinophilic and myxomatous areas within. The features were suggestive of pleomorphic adenoma. Surgical excision of the tumor was advised. Prior to surgical excision, an irreversible hydrocolloid impression of upper arch was made and a cast was prepared (Figure 2,3) on which a immediate surgical heat cured acrylic obturator was fabricated. Wide excision of the tumor was done. Figure 4 shows gross appearance of the surgically excised tumor. The surgical obturator was placed over the defect immediately post-operatively (Figure 5). The patient was followed up for a period of 6 months during which satisfactory healing of the surgical site was observed and no evidence of recurrence was noticed

DISCUSSION

Females are more affected than males, with a ratio of 2:1. It occurs in the fourth and fifth decades of life, but may arise at any age. PA of minor salivary gland is most common in palate (10%), followed by lip (4%). [2] The unusual sites are sinuses, larynx epiglottis, and trachea. PAs have also been reported in tongue, soft palate, uvula, and even external auditory canal. [3],[4]. Though the case presented is not a rare one. Clinically the patient presented a solitary, painless, slow growing, well-circumscribed palatal lump which is typical presentation of such tumor. The mechanical symptoms most commonly manifested by tumors of this location are dyspnea, dysphagia, acute airway obstruction, and obstructive sleep apnea.[5] In our case the presenting complaints did not cause difficulty in speech. The main diagnostic modalities are FNA biopsy and imaging. Cytological finding in PA are typically of mixed epithelial cells and mesenchymal elements. These features were clearly illustrated in our case. The histopathological confirmation is mandatory in operating these tumors. However, differentiation from adenoid cystic carcinoma and polymorphous low grade adenocarcinoma may be difficult with FNA alone. Imaging with ultrasound, MRI, or computed tomography (CT) may be used depending on the site and size of tumor. [6] In present case, CT was primarily used to determine size and more importantly infiltration of lesion into the surrounding tissue. We found the lesion to be a 2 × 3 cm soft tissue dense mass, not involving adjacent tissues, and displacing the tongue. Surgical excision is the treatment of choice. Longevity and recurrence are risk factors for malignant transformation. Tumors of the hard palate are usually excised down to periosteum, including the overlying mucosa. In other oral sites, the lesion often enucleates easily through the incision site. With adequate surgery the prognosis is excellent with a cure rate of more than 95%.[7] Recurrence rates range from 0.8% to 6.8%. Reasons for recurrence include incomplete excision, seeding, cutting through the microscopic extracapsular projections thereby leaving some tumor behind. The malignant transformation of lesion is documented to be 1.9-23.3%.[8] The primary goal of excision should be complete removal of mass without risking recurrence. Complete excision of tumor with overlying mucosa was performed and surgical obturator was placed to avoid routine difficulties. This produced an excellent result. The excised region was left to heal by secondary intention also.

SUMMARY AND CONCLUSION

PA, though a common entity, is still a challenging tumor for pathologist, radiologist, and the surgeon. Its diverse histological and topographical property makes the tumor special. The examining clinician and treating surgeon must be aware of its recurrence, longevity, and malignant potential if incorrectly diagnosed or treated. Under the conditions of this study, surgical excision of the tumor and the mucosal lining was shown to be an effective treatment modality for pleomorphic adenomas of the palate. In addition, the use of a removable acrylic appliance in the initial healing period proved to be a reasonably good treatment option with regard to the removal of pathological tissue and postoperative complications.

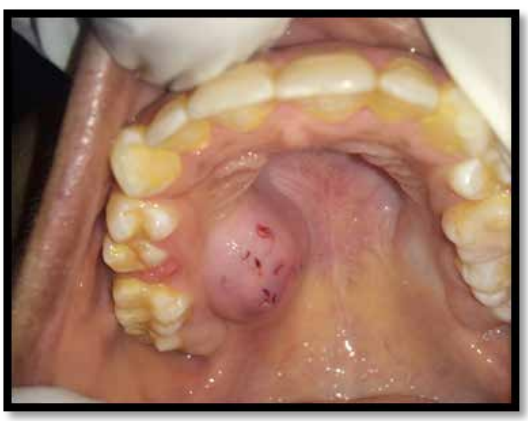

Figure 1: Localised Maxillary swelling of Pleomorphic Adenoma

Figure 2: Primary irreversible hydrocolloid impression

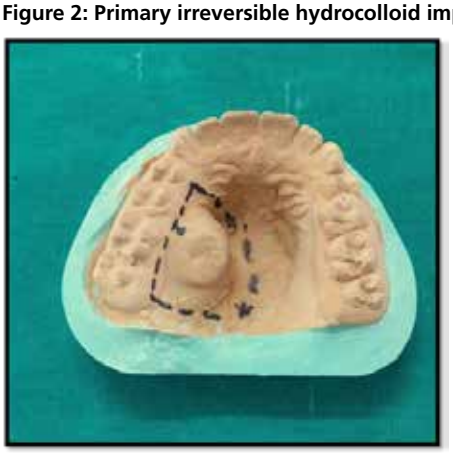

Figure 3: Outline of the surgical resection area

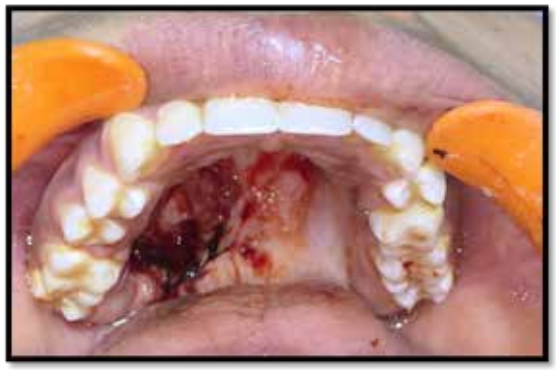

Figure 4: Intraoperative view of the surgical site

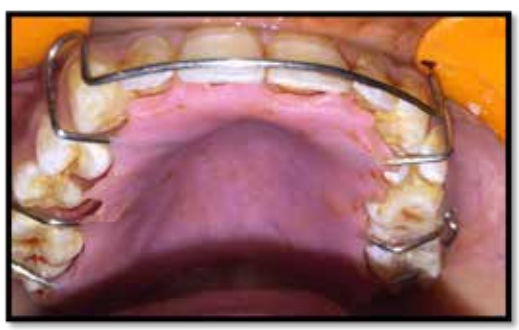

Figure 5: Insertion of the surgical obturator and lesion was left to heal by secondary intention

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