Pleomorphic Adenoma of Soft Palate - A rare presentation

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Abstract
Pleomorphic adenoma is the most common tumor of salivary glands. Preferentially, 90% of these tumors occur in the parotid gland and the other 10% occur in the minor salivary glands. The common sites for pleomorphic adenoma of the minor salivary glands include palate, lips and cheeks. These sites are later followed by floor of mouth, tongue, tonsil, pharynx, retromolar area and nasal cavity. It usually presents as a slow growing, painless lesion in the mouth. In the present article, we report a case of 30 year-old female with pleomorphic adenoma of the soft palate. The tumor was removed by excision. Histology revealed both epithelial and mesenchymal components which confirmed the diagnosis. No recurrence was noticed during the follow-up period of 10 months.

Keywords: pleomorphic adenoma, minor salivary glands, palate, retromolar

1. Introduction
Pleomorphic adenoma is the most common neoplasm of both major and minor salivary glands. It accounts for 60% of all salivary gland tumors. Palate is considered as the most common intra-oral site (42.8-68.8%), followed by upper lip (10.1%) and cheek (5.5%). Other uncommon sites include throat (2.5%), retromolar region (0.7%), floor of mouth and alveolar mucosa.[1-3]

Pleomorphic adenoma usually occurs as a painless, slow growing lesion in the fourth or fifth decade.[4] The highest incidence is between 30 to 60 years of age with female predominance.[5] Fine-needle aspiration cytology (FNAC) and incision biopsy aid as initial diagnostic tools.[6-8] Computed tomography (CT) scan or magnetic resonance imaging (MRI) should be considered when assessing for presence of bony erosion or soft tissue and nerve involvement.[10]

2. Case report
A 30-year old young female came to the ENT outpatient department with a painless swelling over the left side of soft palate of 3 months duration (Fig. 1). The swelling was initially small and slowly progressed to the current size of 2x2 cm. Swelling was causing discomfort during speech and swallowing. Oral examination revealed a sessile, well circumscribed, soft tissue mass with overlying mucosa slightly erythematous.

On palpation, the swelling was non-tender, firm in consistency with smooth surface. There was no extension into the adjacent bone. The swelling does not cross the midline. CT scan was done to exclude bone involvement. FNAC of the swelling was suggestive of an inflammatory lesion with inconclusive diagnosis. Hence, excision biopsy was advised. Surgery was planned and all blood parameters were normal.
Wide local excision with clear margins was performed under general anaesthesia (Fig. 2). Microscopic examination showed cells with epithelial and mesenchymal differentiation. Epithelial cells were arranged in acinar pattern with intervening trabeculae. Mesenchymal component comprises of myxoid, chondroid, hyaline and osseous elements. Stroma was fibromyxoid and chondromyxoid. These features confirmed it to be pleomorphic adenoma of minor salivary gland in the soft palate (Fig. 3). Follow-up was done for a period of 10 months without any recurrence.

3. Discussion

Mixed tumor of the salivary gland, or pleomorphic adenoma, is a benign tumor arising mainly in the major salivary glands (65%), especially in the parotid and less frequently in accessory salivary glands (35%). [9] As far as the intraoral salivary gland tumors are concerned, pleomorphic adenoma also ranks as the most frequently encountered lesion. [2, 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. [12]

Pleomorphic adenoma usually presents as a single, painless, slow-growing soft mass in the areas of salivary gland tissue. However, when it originates in the hard and soft palate, it presents typically as a firm or rubbery submucosal mass without ulceration or surrounding inflammation. [13] If the tumor is left untreated, it can lead to mechanical symptoms such as dysphagia, dyspnoea, airway obstruction and obstructive sleep apnoea. [14] The differential diagnoses for this case includes palatal abscess, odontogenic and non-odontogenic cysts, and other soft tissue tumors. Abscess can be ruled out because clinical examination is devoid of signs and symptoms of inflammation, whereas cysts are not firm in consistency. Other soft tissue tumors such as fibroma, lipoma, neurofibroma, neurilemmoma should be considered in the differential diagnosis and hence, FNAC serves as an adjunct to diagnosis prior to definitive surgical treatment. [10]
Grossly, the tumor is well encapsulated. The tumor is composed of epithelial and mesenchymal components. Histopathological examination reveals cystic spaces surrounded by glandular epithelium arranged in the form of ducts, cords and sheets. Mesenchymal component is composed of spindle-shaped myoepithelial cells with prominent dark nuclei and clear cytoplasm. Stroma is chondromyxoid and composed of hyalinised material.[9,11]

The treatment of choice for pleomorphic adenoma in minor salivary gland is wide local excision with the removal of periosteum or bone if they are involved. Though the tumor is encapsulated, resection of the tumor with wide margin is done to prevent any local recurrence. Prognosis will be excellent if the resection is adequate.[11,13] Pleomorphic adenoma generally does not generally recur after adequate surgical excision but procedures such as simple enucleation of the tumor leads to high recurrence rate and therefore, should be avoided. In recurrent and inoperable cases, irradiation can be done.[8]

Recurrence rate of 2% to 44% in the pleomorphic adenoma has been reported in the literature.[12] The risk of malignant transformation of the pleomorphic adenoma is about 6%. The more delay in diagnosis, higher is the risk. Rarely, cases of metastatic nature and malignant transformation have been reported.[15]

4. Conclusion

Occurrence of pleomorphic adenoma de novo in the soft palate is a rare picture, and therefore it should be considered in the differential diagnosis of all palatal swellings. Prompt diagnosis and early management prevents complications such as local recurrence, malignant and metastatic chances, and hence enhances patient compliance. Diverse histological and topographical features make this tumor a special entity.

References