
Pleomorphic Adenoma of Soft Palate - A rare presentation

M. Vijaya Kumar^{*1}, Anvita Panga², Murthuza Mohammed³, Omer Bin Ali Jabri⁴ and Shaik Karimuddin Abdullah⁵

¹Professor, Department of ENT, Shadan Institute of Medical Sciences, Hyderabad

²Final year post-graduate, Department of ENT, Shadan Institute of Medical Sciences, Hyderabad

³Final year post-graduate, Department of ENT, Shadan Institute of Medical Sciences, Hyderabad

⁴Second year post-graduate, Department of ENT, Shadan Institute of Medical Sciences, Hyderabad

⁵Intern, Shadan Institute of Medical Sciences, Hyderabad

***Correspondence Info:**

Dr. M. Vijaya Kumar

Professor, Department of ENT,

Shadan Institute of Medical Sciences (SIMS),

Peerancheru, Hyderabad, India

E-mail: mvk3150@yahoo.com

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.

Fig. 1: Intra-oral appearance of mild erythematous left palatal swelling



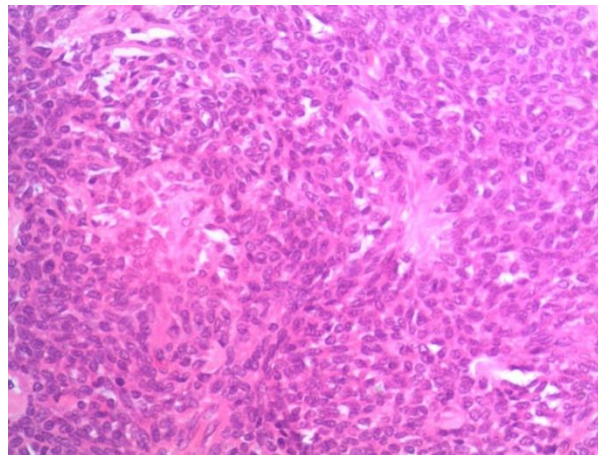
Fig. 2: Surgical removal of tumor by wide local excision



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.

Fig. 3: Photomicrograph showing epithelial and mesenchymal components in a myxoid stroma (H & E, X40)



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

- [1] Van Heerden WF, Raubenheimer EJ. Intra-oral salivary gland neoplasms: a retrospective study of seventy cases in an African population. *Oral Surg Oral Med Oral Pathol* 1991; 71:579-82.
- [2] Wang D, Li Y, He H, Liu L, Wu L, He Z. Intra-oral minor salivary gland tumors in a Chinese population: a retrospective study on 737 cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2007; 104:94-100.
- [3] Toida M, Shimokawa K, Makita H, Kato K, Kobayashi A, Kusunoki Y, et al. Intra-oral minor salivary gland tumors: a clinicopathological study of 82 cases. *Int J Oral Maxillofac Surg* 2005; 34:528-32.
- [4] Kaur S, Thami GP, Nagarkar NM. Pleomorphic adenoma of the hard palate. *Indian J Dermatol Venereol Leprol* 2003; 69:74-5.
- [5] Noghreya A, Gatot A, Maor E, Fliss DM. Palatal pleomorphic adenoma in a child. *J Laryngol Otol* 1995 Apr; 109(4):343-5.
- [6] Dhanuthai K, Sappayatosok K, Kongin K. Pleomorphic adenoma of the palate in a child: a case report. *Med Oral Patol Oral Cir Bucal* 2009 Feb 1; 14(2):E73-5.
- [7] Thakur JS, Mohindroo NK, Mohindroo S, Sharma DR, Thakur A. Pleomorphic adenoma of minor salivary gland with therapeutic misadventure: a rare case report. *BMC Ear Nose Throat Disord* 2010 Jan 8; 10:2.
- [8] Sreenivas SD. Pleomorphic Adenoma of the Palate: A Case Report. *Journal of Indian Dental Association* 2011; 5:557-558.
- [9] Sciandra D, Dispenza F, Porcasi R, Kulamarva G, Saraniti C. Pleomorphic adenoma of the lateral nasal wall: case report. *Acta Otorhinolaryngol Ital* 2008 Jun; 28(3):150-3.
- [10] Frazell EL. Clinical aspects of tumors of the major salivary glands. *Cancer* 1954; 637-642.
- [11] Manu Dhillon, PG Agnihotri, Srinivasa M Raju, Manisha Lakhanpal. Pleomorphic adenoma of the palate: Clinicoradiological case report. *Journal of Indian Academy of Oral Medicine and Radiology* 2011; 23(3):286-88.
- [12] Mubeen K, Vijayalakshmi KR, Pati AR, Girish BG, Chandravir S. Benign pleomorphic adenoma of minor salivary gland of palate. *Journal of Dentistry and Oral Hygiene* 2011; 3(6):82-88.
- [13] Neeraj Prajapati, Abhinav Aggarwal and Aakriti Kapoor. Pleomorphic adenoma of soft palate, a rare lesion. *The Health Agenda* 2013; 1(2):42-44.
- [14] Yoshihara T, Suzuki S. Pleomorphic adenoma of tongue base causing dysphagia and dyspnoea. *J Laryngol Otol* 2000; 114:793-5.
- [15] Gnepp DR. Malignant mixed tumors of the salivary glands: a review. *Pathol Annu* 1993; 28(Pt 1):279-328.