

Pleomorphic Adenoma of Buccal Minor Salivary Gland: A Case Report

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Abstract

Salivary gland tumors are relatively uncommon tumors, accounting approximately 3-10% of head and neck neoplasm. Most of them are benign and pleomorphic adenoma is the commonest among them that involves both major (90%) and minor (10%) salivary glands. The most predominant site of pleomorphic adenoma is palate; however, it may occur in any part of oral cavity like lip, floor of mouth, tongue, tonsil, pharynx, retromolar area and nasal cavity. Mucosa of cheek (4%) is an extremely rare site. A case of 25 years young male is reported here possessing pleomorphic adenoma of buccal minor salivary gland that was presented to us with a mobile swelling over right cheek that found to be pleomorphic adenoma of buccal minor salivary gland after histopathological examination. Surgical excision was done by intra oral approach with adequate margins. Patient had an uneventful postoperative course and discharged same day on oral antibiotics.

Keywords: Buccal swelling; Minor salivary glands; Pleomorphic adenoma; Salivary gland tumor

Introduction

Salivary gland tumors are uncommon cells growing in the channels that drain the salivary glands, consists of both benign and malignant types, usually presents as a painless firm swelling.

Mucosa of cheek is uncommon site for pleomorphic adenoma which present as a painless gradually enlarging submucosal swelling. Histopathologically, pleomorphic adenoma is a mixed tumor characterized by an admixture of polygonal epithelial and spindle shaped myoepithelial elements in a variable background stroma [1]. CT scan and MRI are important tools for diagnosis and to see expanse of disease, further, FNAC may also be used to exhibit the results [2].

The aim of this paper is to report a case of PA of minor salivary gland of buccal mucosa in 25-year young male with clinical, radiological, histological attributes and its treatment. Till the time most of the reported cases are elder than the case we are presenting here.

Case report

A 25-years-male belongs to rural desert locality employed as a worker in construction industry presented to us with a swelling over right cheek that had been slowly growing for past one year. Although the mass was painless, but it was causing difficulty in chewing that pushed him towards medical attention. On examination, a dome shaped swelling was noted on right cheek with normal overlying skin (Figure 1). Mouth opening was adequate. On examination of oral cavity, the oral hygiene was average. A well circumscribed spherical mass was presented over right buccal mucosa measuring approximately 2.5 cm × 2.5 cm (Figure 2).

There were no secondary changes observed on mucosa over the mass (Figure 2). On palpating the mass intraorally, it was found to be non-tender, mobile, well circumscribed spherical with defined regular margins and smooth surfaces. Rest of the oral cavity was normal.

MRI study shown the well-defined lesion with hyperintensity on T2/STIR and hypointensity on T1 observed in submucosal location of buccal mucosa on right side, found benign cystic lesion possibility of minor salivary gland pleomorphic adenoma.

Surgery was planned under local anesthesia using 2% lignocaine. The tumor was excised en bloc after an incision made over the tumor as presented in Figure 3. A well confined mass of 2.5 cm × 2.5 cm in size was removed and mucosa was sutured with absorbable interrupted sutures. Advantage of excision of tumor by intraoral route is better cosmetic outcome which decrease hospital stay as it is done under local



Figure 1: Swelling apparent from external surface of right cheek.



Figure 2: Intra oral image of the swelling.

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Figure 3: Intraoral clinical image during excision of lesion.

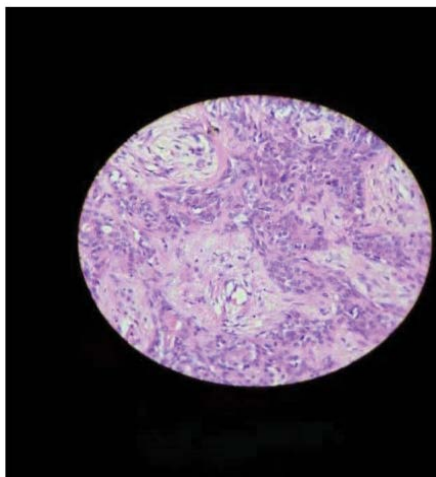


Figure 4: High power view of histopathological image showing ductal arrangements of epithelial cells.

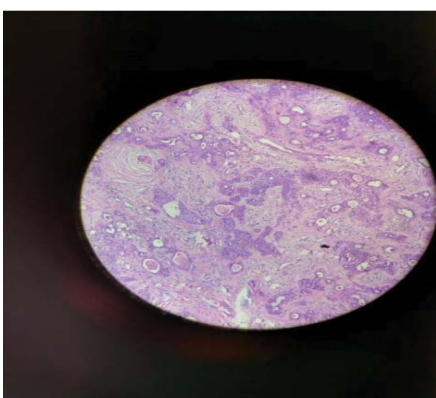


Figure 5: Low power view of histopathological image showing ductal arrangements of epithelial cells.

anaesthesia. The tumor was sent for histopathological examination. Histological examination image as depicted in Figures 4 and 5 provides the diagnosis of PA with the region of influence at the periphery of the tumor.

Patient was kept under observation for 2 hours and then discharged on oral antibiotic, and analgesics with instruction to maintain oral hygiene. The report of histopathology reaffirms the diagnosis of PA of minor salivary gland of right buccal mucosa. No recurrence was noted after following him every month up to 6 months.

Discussion

Tumors of minor salivary glands are rare neoplasms of upper aero digestive tract [3]. A study of United States shows the occurrence of benign salivary gland tumors is roughly 0.0055% cases per one lakh of individuals, with 0.0009% of malignant tumors [4]. These are more uncommon in male than female having a respective ratio of 1:1.2 to 1:1.9, however, the age of patient deviates from 9 to 90-years [5].

The pleomorphic adenoma normally represents as a unilateral, painless, slow growing mass. It has semisolid or rubbery consistency. It expands slowly but can become very large in months or in years, if neglected and not treated properly [6].

Histopathology reveals that the pleomorphic adenoma has an irregular arrangement of epithelial cells. These cells are normally arranged in sheets with bilayered ductal structures. The minor salivary glands are more cellular than those observed in the major salivary glands having polygonal myoepithelial cells with a pale eosinophilic cytoplasm giving an epithelioid or plasmacytoid phenotype [7]. Myoepithelial cells or ductal recessive cells are responsible for such pleomorphic extracellular matrix production. Surgical excision is the only treatment of pleomorphic adenoma.

Though pleomorphic adenomas are encapsulated and rarely infiltrate [8], but some studies show that these tumors have microscopic pseudopodia causing capsular dehiscence [6] and inadequate excision may land up the patient with recurrence [5]. Therefore, resection with an adequate margin is mandatory to minimize the recurrence rate. Young patients have indistinguishable tumor characteristics but low recurrence rates [6].

Conclusion

It can be inferred that the PA of buccal minor salivary gland is a very uncommon tumor, should be diagnosed with proper history and clinical examination. The principal treatment is surgical excision with adequate margin. Although, recurrence rate after adequate excision is very low, but a long term follow up is necessary as recurrence is reported even after many years of surgery.

References

1. Cox JD, Ang KK (2009) Radiation oncology e-book: Rationale, technique, results. Elsevier Health Sci p: 29.
2. Yuan WH, Hsu HC, Chou YH, Hsueh HC, Tseng TK, et al. (2009) Grey-scale and colour Doppler ultrasonographic features of pleomorphic adenoma and Warthin's tumor in major salivary glands. Clin Imag 33: 348-353.
3. Vuhahula EAM (2004) Salivary gland tumors in Uganda: Clinical pathological study. Afr Health Sci 4: 15-23.
4. Pinkston JA, Cole P (1999) Incidence rates of salivary gland tumors: Results from a population-based study. Otolaryngol-Head Neck Surg 120: 834-840.
5. Sethi BP (2015) Pleomorphic adenoma of buccal mucosa: A rare case. OHDM 14.
6. Geetha NT, Deepa BV, Umashankara KV, Kithikumar R (2015) Pleomorphic adenoma of minor salivary gland in the cheek. Int J Oral Health Sci 5: 117.
7. Speight PM (2007) Update on diagnostic difficulties in lesions of the minor salivary glands. Head Neck Pathol 1: 55-60.
8. Bagheri SC, Jo C (2013) Clinical review of oral and maxillofacial surgery-e-book. Elsevier Health Sci 2.