Research Paper Medical Science

Cellular Pleomorphic Adenoma with Mucoepidermoid Metaplasia – An Unusual Presentation

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ABSTRACT

Pleomorphic adenoma is the most common benign salivary gland tumor. It exhibits wide cytomorphologic and architectural diversity owing to different proportions of its epithelial, myoepithelial and stromal components. Mucoepidermoid metaplasia in pleomorphic adenoma is very unusual and entails the need of a careful analysis of this tumor and its distinction from its malignant counterparts. A rare case of pleomorphic adenoma with mucoepidermoid metaplasia in a middle aged female is reported here.

Keywords : mucoepidermoid, metaplasia, carcinoma, squamous

Case Presentation:
A 44 year old female reported to the department of Oral Medicine and Radiology, Manipal in March 2013 with a chief complaint of asymptomatic swelling behind the left posterior most tooth since 4 years. On intraoral examination, a well-defined soft tissue swelling measuring 1X1X0.8 cm, posterior and superior to left retromolar trigone and on the middle third of pterygomandibular raphae was observed. Overlying mucosa was normal [Fig.1]. On palpation, the swelling was soft to firm, freely mobile and non-tender.

Investigations
On radiographic examination, OPG did not show any relevant details but endosonography showed a lobulated, predominantly hypoechoic swelling with a maximum diameter of 19mm. Based on the clinico-radiographic findings, benign salivary gland tumor and benign vascular tumor were considered in the differential diagnosis.

Diagnosis and Treatment:
Owing to the benign chronic course of the swelling, an excisional biopsy was done under GA and the excised lesion was sent for histopathological examination [Fig.2]. The microscopic examination of the lesional tissue revealed the presence of a well encapsulated mass, which was predominantly cellular. A mixed population of cells was observed with predominant epitheloid cells occurring as sheets. The epitheloid cells were polygonal in shape with pale vesicular nuclei and prominent nucleoli with scant pale cytoplasm. Spindle shaped and plasmacytoid cells with hyperchromatic nuclei, few cystic areas and foci of hyalinization were also evident. Periphery of the section showed presence of mucous cells and clear cells. Squamous metaplasia was observed at a few places [Fig.3]. A negative Mucicarmine stain ruled out mucoepidermoid carcinoma. Correlating the clinical, radiographic and histopathological features, a diagnosis of cellular pleomorphic adenoma with mucoepidermoid metaplasia was given.

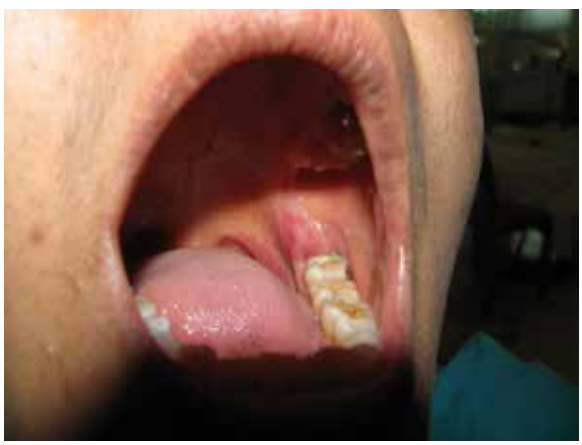
Discussion:
Morphologic diversity is the hallmark of Pleomorphic adenoma. This tumor demonstrates numerous combinations and proportions of glandular epithelium and mesenchyme like tissue. Foote and Frazell (1954) classified the tumor into 4 types depending on the predominant histologic findings: principally myxoid, myxoid and cellular components in equal proportion, predominantly cellular and extremely cellular [1]. Our case demonstrated extremely cellular histomorphology. The mesenchymal component of Pleomorphic adenoma may be myxoid, cartilaginous, osseous or hyalinized [2]. Squamous metaplasia with occasional keratin pearl formation is common and can involve both ducts and sheets of cells [3]. Seldom, these tumors may exhibit areas of sebaceous metaplasia, clear cell change or mucoepidermoid metaplasia [4]. Squamous cell carcinoma or mucoepidermoid carcinoma may be considered in the differential diagnosis in cases with limited biopsy material diagnosed as pleomorphic adenoma exhibiting squamous or mucoepidermoid metaplasia [5]. A careful clinicopathological evaluation of this tumor can be of enormous benefit in arriving to a precise diagnosis and aid in a conservative management.

Conclusion:
A very rare case of pleomorphic adenoma with mucoepidermoid metaplasia in an unusual location is described here. A detailed clinicopathological correlation assists in a definitive diagnosis and conservative management.

7. Legends:
Figure 1. Submucosal lesion on left retromolar trigone

Figure 2. Excisional biopsy specimen of the lesion

Figure 3. Highly cellular lesion showing presence of mucous cells and squamous metaplasia



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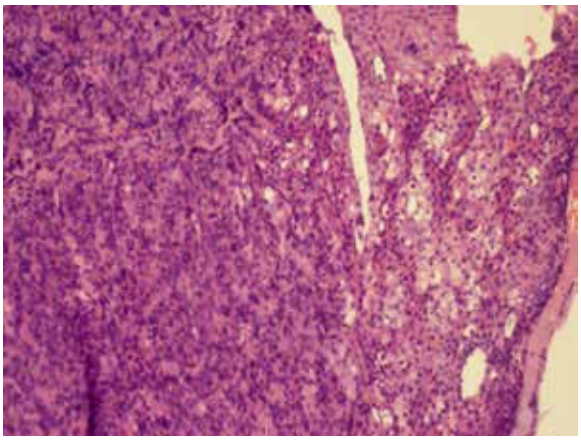

Figure 3. Encapsulated cellular lesion showing presence of mucous cells and squamous metaplasia

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