Case Report

Palatal plasmacytoid myoepithelioma

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Abstract

Myoepitheliomas are benign neoplasms of salivary glands derived from myoepithelial cells. These tumors can occur at any age but are most common in young adults. This tumor is usually located in the parotid gland and the minor salivary glands of the soft palate and represents less than 1% of all salivary gland tumors. The myoepithelioma is classified in the follow cells types: spindle, plasmacytoid, reticular, epitheliod, and clear, additionally, mixed histological forms are described. The plasmacytoid myoepithelioma from palate salivary glands is considered as a rare entity. A 45-year-old lady presented with an asymptomatic, well-circumscribed, solid mass located on the hard palate, which was gradually increasing in size. A clinical impression of Pleomorphic Adenoma was made which on histopathological examination revealed cords, clusters, and sheets of homogenous, large cells with plasmacytoid characteristics and a prominent eosinophilic cytoplasm. Ductal and acinar differentiation were absent thus ruling out the pleomorphic adenoma, whereas, features consistent with plasmacytoid myoepithelioma were evident.

Key Words: Myoepithelioma, minor salivary gland tumor, plasmacytoid

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Received: 04.04.2012, **Accepted:** 08.05.2012

INTRODUCTION

Myoepithelioma is a rare kind of salivary gland tumor, which was first described by Sheldon in 1943, and was then considered to be a variant of pleomorphic adenoma (PA).[1] This tumor is usually located in the parotid gland and the minor salivary glands of the soft palate and represents less than 1% of all salivary gland tumors.[2] Several authors now consider this tumor as being a distinct pathological entity with a biological behavior different from that of mixed tumors, even though myoepithelioma was once considered to be a variant of PA with exclusively myoepithelial differentiation.[3] Normally, myoepithelial cells are essential component of some exocrine glands such as salivary glands, lacrimal glands, sweat glands, and mammary glands.[4] The myoepithelioma is characterized by the proliferation of myoepithelial cells arranged in cords, nests, or mantles. On a histological point of view the myoepithelioma is classified in the follow cells types: spindle, plasmacytoid, reticular, epitheliod, and clear, additionally, mixed histological forms are described. The plasmacytoid myoepithelioma from palate salivary glands is considered as a rare entity.[5]

Access this article online	
Quick Response Code:	Website: www.advbiores.net
	DOI: 10.4103/2277-9175.102985

CASE REPORT

A 45-year-old lady presented with an asymptomatic, well-circumscribed, solid mass located on the hard palate close to the midline near the junction of hard and soft palate. The lesion was round to oval around 2 cm in diameter and covered by slightly red intact nonulcerated mucosa. The swelling had persisted for one and half years and was gradually increasing in

How to cite this article: Sethi D, Ahluvalia C, Khatri A, Khetarpal S. Palatal plasmacytoid myoepithelioma. Adv Biomed Res 2012;1:78.

size since then. On physical examination, there was no lymphadenopathy. The radiographic examination revealed no erosion of maxillary cortical bone. Computed Tomography was however not done. There was no history of chronic tobacco chewing or other contributory findings. A clinical diagnosis of Pleomorphic Adenoma (PA) was suggested.

A total excision of the lesion was carried out with a margin of nonlesional area under local anesthesia. Grossly, the lesion consisted of a well-circumscribed, gray–white, solid mass with a smooth outline measuring 2 × 1.5 × 1.5 cm [Figure 1]. The specimen was fixed in 10% buffered formaldehyde and embedded in paraffin. Serial sections (4 µm thickness) were taken from the block and stained with hematoxylin eosin (H and E).

Microscopic examination revealed cords, clusters, and sheets of homogenous, large cells with plasmacytoid characteristics presenting round or ovoid eccentric nuclei and a prominent eosinophilic cytoplasm with few areas showing hyaline change. The mass was surrounded by a fibrous capsule. Ductal and acinar differentiation was absent. There was no evidence of malignancy such as mitotic figures, necrosis, interstitial hemorrhage, or infiltration of the adjacent tissues. The final histopathological diagnosis of benign plasmacytoid myoepithelioma was made [Figures 2-4]. The patient is under follow-up since two months. There is no evidence of recurrence till now.

DISCUSSION

Myoepitheliomas are benign neoplasms of salivary glands derived from myoepithelial cells. These tumors can occur at any age but are most common in adults between the ages of 30 and 50 years, with an

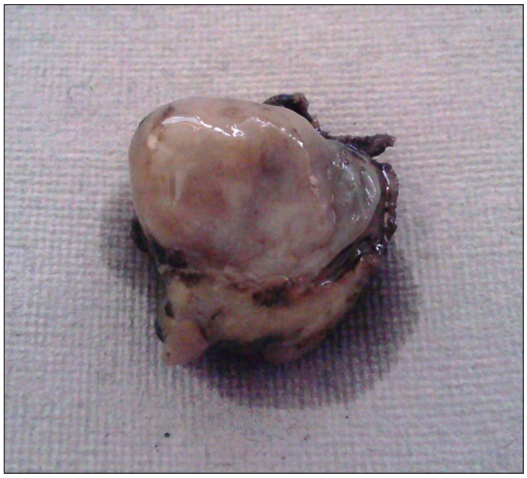

Figure 1: Well-circumscribed, gray–white, solid masses with a smooth outline measuring 2cm × 1.5cm × 1.5cm

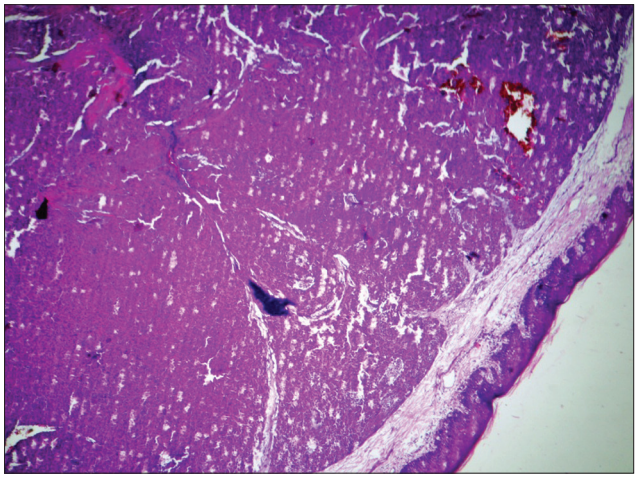

Figure 2: Well-circumscribed tumor mass with a fibrous capsule enclosing cords and sheets of plasmacytoid myoepithelial cells (H and E;×100)

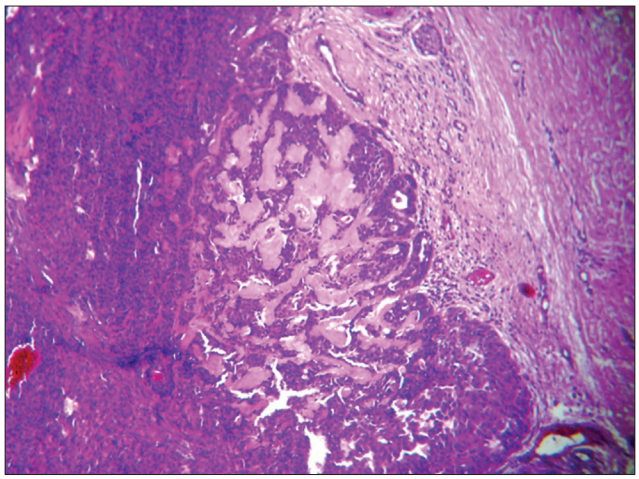

Figure 3: Few hyaline areas admixed with predominant plasmacytoid population. No ductal or acinar differentiation appreciated (H and E;×100)

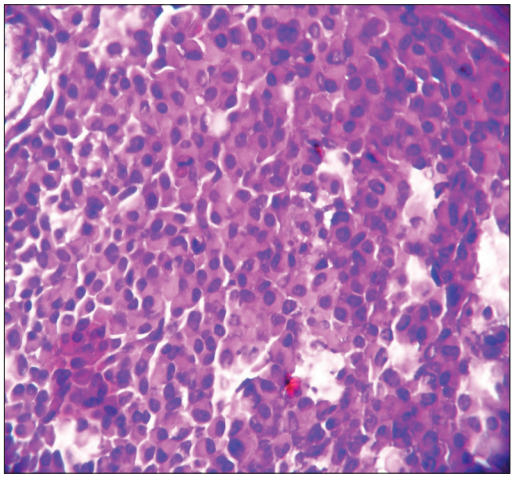

Figure 4: Round to ovoid cells with eccentric nuclei and a prominent eosinophilic cytoplasm (H and E;×400)

average age of 36.3 years.[3] Although the architectural variations of myoepitheliomas are well defined, it must be emphasized that they can at times be difficult to differentiate from other tumors, particularly PAs. It has been suggested that these lesions are two different forms of the same entity.[6] However, other authors have stressed that myoepitheliomas are tumors exclusively composed of myoepithelial cells, with an absent or inconspicuous ductal component, and must be definitely differentiated from mixed tumors as these may present a more aggressive behavior.[7] The treatment is surgical in both cases with excision of the swelling with a margin of nonlesional area. In the present case, the neoplastic cells were all round to oval with eccentric nuclei and eosinophilic hyalinized cytoplasm resembling plasma cells. No ductal/luminal cellular differentiation was seen in the resected specimen.

It has been proposed that if the neoplasm contains less than 5% of ductal and acinar components, it must be named myoepithelioma.[5,8] However, this quantitative parameter constitutes the diagnostic parameter accepted to establish a differential diagnosis between pleomorphic adenoma rich in myoepithelial cells and plasmacytoid myoepithelioma. It is also important to separate benign from malignant variants of myoepitheliomas. Malignant tumors are differentiated from their benign counterparts by their characteristic multi-lobulated architecture, presence of infiltrating growth, necrotic areas, polymorphism, and mitotic figures.[9] Since none of these histological features were observed in this case, in addition to the lack of cell atypia, it was considered as a typical benign neoplasm. A Ki-67 labeling index of more than 10% in myoepitheliomas is highly suggestive of malignant biological behavior.[4]

CONCLUSION

Finally, epithelial-myoepithelial carcinoma, polymorphous low-grade adenocarcinoma, and adenoid cystic carcinoma, as well as inflammatory conditions must be excluded.[4,10] These can often be excluded on the basis of their characteristic histopathological features. As there were no duct formations seen in the present case, these differentials could be easily excluded.

The treatment of choice for myoepitheliomas is complete surgical excision with margin of nonlesional area, without recurrence risk even after 10 years of surgery. Radiation therapy is used only in cases where surgical operation is not feasible.[11]

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Source of Support: Nil, **Conflict of Interest:** None declared.