

Pleomorphic Adenoma of Hard Palate Arising from Minor Salivary Gland: Diagnosed by Fine Needle Aspiration Cytology

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Abstract: We report a case of middle aged male presented with a unilateral, asymptomatic mass in palate. Fine needle aspiration cytology (FNAC) of the mass revealed pleomorphic adenoma. Histopathologic examination of the subsequent specimen confirmed the FNAC diagnosis

Keywords: Pleomorphic adenoma, FNAC, minor salivary gland

INTRODUCTION

Minor salivary gland tumours represent a heterogeneous group of neoplasms, with a broad range of histological types and growth patterns [1]. Salivary gland tumours constitute about less than 4% of all head and neck tumours [2]. Tumours of the minor salivary glands represent 10-15% of all salivary gland neoplasms [3]. Pleomorphic adenomas are benign salivary gland tumours that represent about 3-10% of the neoplasms of the head and neck region [4].

CASE REPORT

A 35 year male reported with a slowly growing mass on soft palate which was present for the past 6 years and gradually progressing in its size. On examining intraorally, a nodular mass was present in relation to the left side of the palate measuring roughly about 5 × 4.5 cm extending mediolaterally from the mid – palatal area to the lingual surface of molar teeth (Figure 1). The mucosa over the swelling appeared to be normal with no secondary changes. On palpation the mass was non – tender, firm in consistency, non-compressible, did not show any fluctuation or pus discharge. A clinical differential diagnosis of dentigerous cyst with nodulous outset (due to its proximity to molar teeth) and a tumour of minor salivary gland origin (benign or malignant) were considered. Fine needle aspiration was performed, which yielded mucoid scanty material. Smears were stained with hematoxylin and eosin stain, showed moderate cellularity comprised of poorly cohesive epithelial like cells having bland ovoid nucleus in a background of fibromyxoid stroma (Figure 2). Diagnosis of pleomorphic adenoma of minor salivary gland was rendered. Histopathological examination of the specimen showed confirmed the FNAC diagnosis. Histopathological sections showed epithelial component arranged in cords tubules, nests and sheets, focally displaying squamous metaplastic changes, intermingled with mesenchymal myxoid component and pseudocartilaginous stroma (Figure 3).



Fig. 1: Nodular mass over hard palate extending mediolaterally from the mid-palatal area to the molar teeth

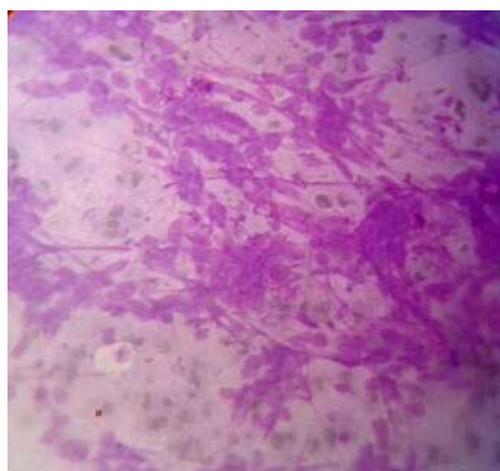


Fig. 2: Fine needle aspiration cytology showing poorly cohesive epithelial -like cells with fibromyxoid stroma

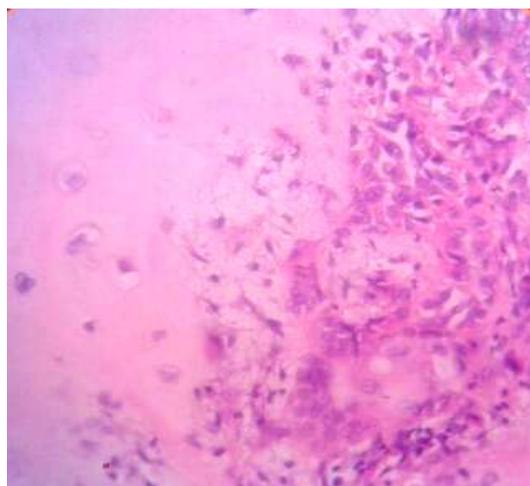


Fig. 3: Histopathology showing epithelial component (right) blending with chondromyxoid stromal component (left)

DISCUSSION

Majority of the tumours arising in the minor salivary glands are malignant with only 18% being benign [5]. Benign tumours of minor salivary gland origin are most frequently pleomorphic adenoma [6].

The signs and symptoms of tumours associated with minor salivary glands vary according to their different anatomical sites. The most frequent site of origin is the oral cavity and oropharynx and, within the oral cavity, most tumours develop in the region of the hard palate because this is the area with the highest density of minor salivary glands. Most of patients present a painless nonulcerative, submucosal swelling [3].

Histopathologically, pleomorphic adenoma is an epithelial tumour of complex morphology, possessing epithelial and myoepithelial elements arranged in a variety of patterns and embedded in a mucopolysaccharide stroma [7].

These tumours are encapsulated and hence complete removal ensures cure. Care should be taken to leave at least 1mm margins around the lesion. While removing the mass, rupture of the capsule is to be avoided to minimize recurrence. Long-term follow-up

is recommended, as the risk of recurrence may remain lifelong for such patients [8, 9].

CONCLUSION

Even though benign tumours like pleomorphic adenoma are considered common for major salivary glands, they are comparatively a less common entity for minor salivary glands. FNAC and biopsy plays very important role in diagnosing these tumours arising from minor salivary glands, thus preventing over diagnosis.

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