



Case Report:

Pitfalls in Cytodiagnosis of Pleomorphic Adenoma of the Nasal Septum - A Rare Case Report

Abhishek MG, Assistant Professor, Department of Pathology,
Vijayshankar S Assistant Professor, Department of Pathology,
Amitha Krishnappa, Assistant Professor Department of Pathology,
Adichunchanagiri Institute of Medical Sciences, BG Nagara, Bellur cross, Mandya district, Karnataka, India.

Address For Correspondence:

Dr Abhishek MG,
Assistant Professor,
Department of Pathology,
Adichunchanagiri Institute of Medical Sciences,
B.G.Nagara, Bellur cross,
Mandya district, Karnataka, India.
E-mail: drmgabhishek@gmail.com

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Abstract:

Pleomorphic adenoma is the most common benign mixed tumor of major salivary gland. Ectopic occurrence of pleomorphic adenoma are seen in minor salivary glands of pharynx, trachea, larynx and very rarely in nasal septum. We report a case of 40 year old female who presented with right sided nasal mass and mild nasal obstruction since six months. Cytologically a possibility of pleomorphic adenoma was made which was confirmed by histopathological study. We present this case due to 1) rarity in the nasal septum 2) pitfalls at cytology due to abundance (predominance) of myoepithelial cells and scanty or even absent mesenchymal component and 3) under reporting in English literature to the best of our knowledge.

Key Words: Pleomorphic adenoma; Nasal septum; Fine needle aspiration cytology

Case Report:

A 40 year old female presented with the complaint of right sided nasal mass and minimal nasal obstruction since six months. Clinical examination revealed a firm swelling on the right side of the nose. Rhinoscopy showed a pink white globular firm mass with smooth surface arising from the nasal septum. Clinically the possibilities of haemangioma or chordoma were considered. The patient was subjected for FNAC.

On Examination revealed a pink-white firm mass arising from the right side of nasal cavity measuring 1.5x1.0 cm (Figure 1). Aspiration was performed twice from different sites which yielded scanty blood mixed whitish material. Cytology showed moderately cellular smears comprising of predominantly epithelial component arranged in pseudo papillary pattern, acini, ducts and in singles (Figure 2), against the background showing scanty mesenchymal stroma characteristic of fibrillary chondromyxoid appearance. Thus the possibility of pleomorphic adenoma was suggested. The mass was excised under local anaesthesia and sent for histopathologic examination which confirmed the diagnosis of pleomorphic adenoma. (Figure 3)



Figure1: Rhinoscopy showing a pink white globular firm mass with smooth surface arising from the nasal septum

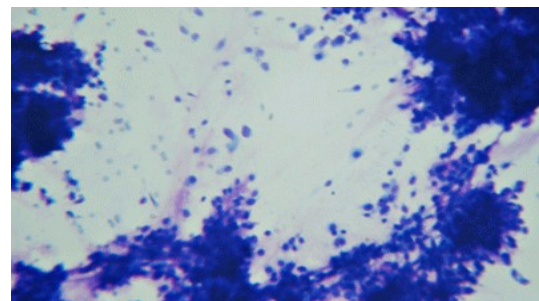


Figure2: Photomicrograph shows cellular smear comprising of predominantly epithelial cells in pseudopapillary pattern, clusters and in singles (Geimsa stain, X 100)

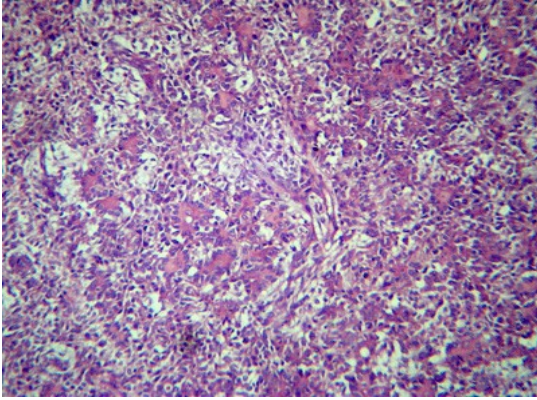


Figure3: Photomicrograph shows tumour cells in cords, tubules, sheets intermingled with scant myxoid stroma. (Haematoxylin and Eosin, X 450).

Discussion:

Pleomorphic adenoma is a common benign mixed salivary gland tumor arising most commonly from Parotid (80%).¹ Incidence of pleomorphic adenoma in nasal septum is only 3%.¹ It occurs more commonly in females between third & sixth decade of life. The other common sites are palate, pharynx, larynx, trachea, rarely the nasal septum.² Clinically it appears as a solitary painless, slow growing nodule. Pleomorphic adenoma of nasal septum was reported for the first time in 1929 by Denker and Kahler.³ According to Spirro et al (1973) common site for pleomorphic adenoma in nasal cavity is on four square cartilage of nasal septum. Nasal septum is an unusual site for the occurrence because majority of minor serous and mucinous glands are located in the lateral wall.⁴ At present there are two theories that explain the origin of septal pleomorphic adenoma, one being that it arises from the Jacobson's organ or vomeronasal organ, an epithelial lined 6mm duct in the septal cartilage, which normally degenerates during early foetal life and the other being that it may arise from misplaced embryonic epithelial cells from the mucous membrane of the septum.⁶

At histopathology most of the pleomorphic adenoma have biphasic component comprising of epithelial/myoepithelial and fibromyxoid, chondroid stroma, but usually wide variations in the morphologic spectrum have been reported, varying from large epithelial types to large stromal types. This wide spectrum of morphological variations is a major source of pitfall or error in cytological interpretations. Predominance of epithelial cells in FNAC leads to a mistaken diagnosis of monomorphic adenoma, myoepithelioma and adenoid cystic carcinoma. If myxoid material is predominant with scant or absent epithelial cells it may be erroneously diagnosed as retention cyst, while presence of many metaplastic cells with scant mucoid material may lead to mistaken diagnosis of mucoepidermoid carcinoma.⁸

Pleomorphic adenoma in the nasal septum is unique in that, these neoplasms have predominant epithelial component, the stromal component being inconspicuous⁷ making cytological diagnosis difficult.

Hence predominance of benign epithelial cells in the aspirate should caution a pathologist to consider pleomorphic adenoma as a differential diagnosis in evaluating nasal cavity masses, thereby preventing aggressive treatment and local recurrences.

Although excision is the main stay of treatment and majority behave in a benign fashion, 50% of pleomorphic adenoma in nasal septum have local recurrences. Hence follow up is must.

Conclusion:

Singultus can present as a symptom with or without obvious cause and rarely due to underlying disease. Due to absence of controlled studies, evidence-based recommendations for treatment are difficult to produce. This was a relatively rare case of postoperative intractable hiccups following stapedectomy. Its control was crucial for the success of the operation and patient's wellbeing. Both were eventually obtained. Although uncommon in this particular operation, persistent hiccups are possible to face and ways of managing them should be considered.

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