

Pleomorphic Adenoma of the Nasal Septum

Thakur Rahul Tejendrasingh, Sonawale Sanjay Kumar Laxmanrao

ABSTRACT

Pleomorphic adenoma is a common, benign tumor arising from the major salivary glands, most commonly from the parotid gland. In addition, they may also occur in the minor salivary glands of the hard and soft palate. Intranasal pleomorphic adenomas are unusual and may be misdiagnosed because they have greater myoepithelial cellularity and fewer myxoid stromata compared to those elsewhere. We report a case of pleomorphic adenoma of the nasal cavity arising from the nasal septum.

Keywords: Pleomorphic adenoma, Nasal septum, Mixed tumor.

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INTRODUCTION

Intranasal pleomorphic adenomas are rare, benign tumors which typically grow slowly and have a propensity for recurrence after surgical resection. Salivary gland tumors constitute about 3%¹ of all neoplasms.

The majority of these tumors are benign and about 70% are pleomorphic adenomas. A small minority (8%) are located in the oral cavity, neck and nasal cavity. Computed tomography/magnetic resonance imaging (CT/MRI) are main diagnostic tool however definitive diagnosis is made by histopathological examination only. We present a rare case of pleomorphic adenoma of the nasal septum.

CASE REPORT

A 36-year-old male presented with a 1.5-year history of progressive left nasal obstruction for the last 1 to 1.5 years, two episodes of mild epistaxis and gradually enlarging mass involving the left nasal cavity. There was no other relevant past history. There was no history of visual defect, atopy or previous trauma to the nose. His weight was stable and his general health was satisfactory. On inspection, the lateral wall of the nasal cavity appeared splayed laterally by a mass within the left nasal cavity though the skin over the swelling appeared normal. On anterior rhinoscopy, a lobulated, pale, firm mass was seen involving the entire left nasal fossa (Fig. 1). A probe could not be passed around the mass. The mass appeared to arise from the nasal septum and caused deviation of the nasal septum to the contralateral side. The mass did not bleed on manipulation. There was no evidence of rhinosinusitis and his postnasal space was normal. There

were no palpable neck nodes. Radiological examination (CT scan) demonstrated well pneumatized paranasal sinuses and a well-defined cystic area in the left anterior fossa of the left nasal cavity. The smooth surface, preservation of mucosal lining and the localized nature of the mass were consistent with a benign lesion.

An endoscopic resection was used as an approach to the tumor (Fig. 2) and as a method of excising the mass with the segment of septal cartilage attached to it. Histological analysis of the tumor confirmed a benign pleomorphic adenoma with no focus of malignant change (Fig. 3). The patient was discharged on the day 3, and the postoperative course was uneventful. After 2 months, the patient had experienced no further problems with the nasal airway, and repeated nasal endoscopic examination revealed no recurrence of the disease (Fig. 4).

DISCUSSION

Pleomorphic adenomas are the most common tumor of the major salivary glands, but are not usually seen in respiratory tract. Cases have been reported in the nasal cavity, paranasal sinus, nasopharynx, oropharynx, hypopharynx and larynx.² In the upper respiratory tract, the most favored site of origin is the nasal cavity, followed by the maxillary sinus and the nasopharynx.³ The first reported case in the literature of a pleomorphic adenoma of the nasal cavity was by Denker and Kahler in 1929.⁴ Although the vast majority of minor mucous and serous glands are located in the lateral nasal wall, pleomorphic adenomas in the nasal cavity mostly originate from the nasal septum. Larger studies of intranasal pleomorphic adenoma include 40 cases reported by Compagno and Wong and 59 cases reported by Wakami et al.^{5,6}

The majority of tumors present between the age of 30 and 60 years and are slightly more common in women. Typical presenting features include unilateral nasal obstruction (71%) and epistaxis (56%). Other signs and symptoms include a mass in the nose, nasal swelling, epiphora and mucopurulent rhinorrhea.⁵

Pleomorphic adenomas are characterized by epithelial tissue mixed with tissues of mucoid, myxoid or chondroid appearance. The features of pleomorphic adenomas in the aerodigestive tract are somewhat similar to those of mixed tumors of the salivary glands. Sometimes, pleomorphic adenomas are composed almost entirely of epithelial cells with few or no stromata. This can lead to misdiagnosis as a

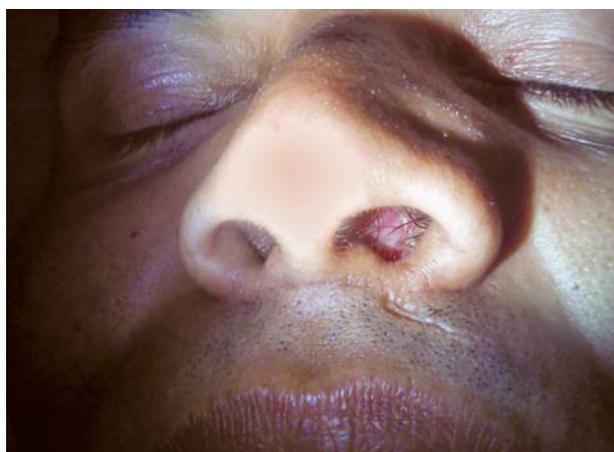


Fig. 1: Mass seen in left nostril



Fig. 2: Specimen removed from the nose

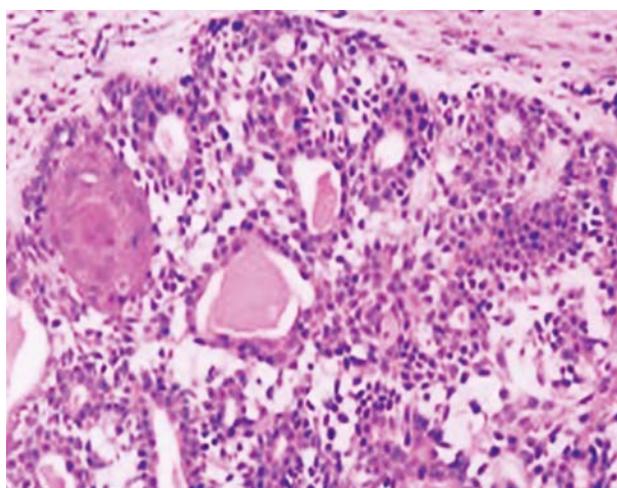


Fig. 3: Microscopic appearance of pleomorphic adenomas showing epithelial tissue



Fig. 4: Diagnostic nasal endoscopy showing healthy left nostril

carcinoma.⁵ Evans and Cruickshank contradicted the previous two theories and claimed that these tumors are entirely epithelial tumors that arise in fully developed gland tissue.⁷ Wide local resection with histological clear margin is generally agreed as the treatment of choice for benign salivary gland tumors. Postoperative radiotherapy has been recommended by some authors where residual disease was apparent.⁸ In the case of intranasal pleomorphic adenoma, several surgical approaches have been described to achieve wide local clearance and these include intranasal, transnasal endoscopic, external rhinoplasty, lateral rhinotomy and midfacial degloving.⁹ Compagno and Wong found a 10% recurrence rate following surgical excision in their patients who had 1 to 41 years of follow-up.⁵ The outlook for intranasal mixed tumors is better than for those in other ectopic sites, because they show early symptoms leading to an early diagnosis. Involvement of the surrounding structures such as bone is rare since the tumors have sufficient space to expand within the nasal cavity.⁹ The two

nasal septal neoplasms reported by Cho et al represent the first confirmed examples of a carcinoma ex-pleomorphic adenoma of the nasal mucosa. No distant metastasis occurred in either case.¹⁰ Ten cases of metastasizing pleomorphic adenoma of the parotid gland and three patients with metastatic pleomorphic adenoma of the minor salivary glands have been reported in the literature.¹¹

CONCLUSION

Thus, to conclude, pleomorphic adenomas are rare tumors of the nasal cavity. They have a higher epithelial and lower stromal component compared to their major salivary gland counterparts and may be misdiagnosed at an early stage leading to more aggressive treatment. We suggest consideration of this diagnosis if the patient has unilateral nasal obstruction or epistaxis as a presenting complaint. In view of the potential for tumor recurrence, long-term follow-up and careful examination of the nose with an endoscope are necessary.

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ABOUT THE AUTHORS

Thakur Rahul Tejendrasingh

Resident (Final year), Department of ENT, BJ Medical College, Pune Maharashtra, India

Sonawale Sanjay Kumar Laxmanrao (Corresponding Author)

Assistant Professor, Department of ENT, BJ Medical College, Pune Maharashtra, India, Phone: 9890012113, e-mail: smileyrahul_19@yahoo.com