Huge pleomorphic adenoma of nasal cavity

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Abstract

Pleomorphic adenoma is a common benign tumour of the salivary gland that has elements of both epithelial and mesenchymal tissue. It is commonly seen in major salivary glands, parotid being the most common site followed by submandibular gland. However it can sometimes arise from minor salivary glands that are distributed throughout the upper aerodigestive tract and paranasal sinuses. We report a case of a 45 yrs. Old male patient, who presented with progressive nasal blockage and intermittent minor episodes of epistaxis from left nostril for 1 ½ years. Lateral Rhinotomy revealed a well encapsulated lesion attached to the nasal septum, which was excised completely. Histopathology revealed it to be Pleomorphic Adenoma without any features of malignancy. Lesion is a rare one hence reported.

Keywords Pleomorphic adenoma · Nasal cavity · Nasal septum · Lateral rhinotomy

Introduction

Pleomorphic Adenoma is the most common benign tumour of major and minor salivary glands. Minor salivary glands are widely distributed in the upper respiratory tract. Commonly seen on the palate, uvula, buccal mucosa, tongue, floor of mouth and even in the tonsils. Some minor glands are also present in the nasal cavity, paranasal sinuses, pharynx and even larynx. Pleomorphic adenomas have been reported from all the above sites, about 20 cases of adenomas in the Larynx have been reported in the literature.

Approximately 10% of salivary neoplasms arise in minor salivary glands. Only 40% of these are benign, but almost all of the benign tumours are pleomorphic adenomas. It is however uncommon in nasal cavity. A large majority of nasal pleomorphic adenomas arise from lateral wall followed by the mucosa of bony and cartilaginous part of septum. However adenomas have been reported from tip of nose, ethmoid sinuses and maxillary sinus. Here we report a case of large nasal pleomorphic adenoma attached to the nasal septum.

Case report

A 45-year-old male patient presented to the ENT outpatient department of Govt. Medical College and Hospital, Nagpur, with the complaints of slowly progressive nasal obstruction on left side with intermittent episodes of minor epistaxis for the last 1 ½ years. There was no history of pain or trauma to the nose. Patient did not give any history suggestive of allergy.

On clinical examination, externally there was widening of the left nasal cavity with obliteration of left naso-facial groove. Anterior rhinoscopy revealed a polypoidal lesion completely filling the left nasal cavity. On probing the lesion was free laterally with doubtful attachment to the septum. The lesion was less sensitive to touch and did not bleed on probing. Posterior rhinoscopy revealed the same lesion occupying both choana. Rest of the ENT examination was within normal limits.

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Fig. 1 Post contrast CT PNS showing the Lesion

Fig. 2 Excised specimen of nasal pleomorphic adenoma

A radiograph of paranasal sinuses, Waters' view, was done which showed radio-opaque shadow in the left nasal cavity with opacification of left maxillary and frontal sinus. CT scan revealed mildly enhancing soft tissue mass in left nasal cavity causing scalloping and displacement of medial wall of maxillary sinus laterally. The lesion had doubtful attachment to the nasal septum with its destruction in mid-part and extension into right nasal cavity. The lesion was also extending to the ethmoid sinuses and posteriorly into the nasopharynx along the roof. CT features were suggestive of neoplastic lesion (? Inverted papilloma). Both maxillary and frontal sinuses were free of disease (Fig. 1). A biopsy was taken from the lesion, which showed features of inflammatory polyp.

With the clinical diagnosis of Inverted papilloma, a lateral rhinotomy was done under general anaesthesia. A huge lesion approximately 8 X 10cm in size was found attached to the nasal septum on the left side. There was destruction at the junction of bony and cartilaginous part of septum with small extension in right nasal cavity. The mass was separated completely from the nasal cavity and ethmoid sinus intact and totally excised (Fig. 2). Specimen was sent for histopathological examination.

Histological features were suggestive of pleomorphic adenoma without any evidence of malignancy. Post operative period was uneventful. Patient is under follow up for one year, without any evidence of recurrence.

Discussion

Mixed salivary gland tumours are found to arise from almost any part of the upper respiratory tract. However they are rare in the nasal cavity. Mostly they arise from the lateral nasal wall; some arise from the nasal septum. Various theories are put forward regarding its origin from the septum, which include misplaced embryonic epithelial cells carried via nasal pits to the septum (Mathew et al. 1977), remnant of vomeronasal organ which degenerates in early human fetal life (Stevenson et al. 1977), etc. However Evans & Cruickshank (1977), state that mixed tumours are of entirely epithelial origin and develop in mature salivary gland tissue rather than in embryonic remnant.

Pleomorphic adenomas are known for their frequent recurrences, about 50% in parotid and 25% in oral cavity. However the nasal tumours have relatively low rate of recurrence, about 10%. Recurrence usually occurs due to spilling of myxoid stroma during surgery which can provide focus for recurrence. The diagnosis is established on the basis of history, physical examination, cytology and histopathology. CT scan and MRI can tell about the extension of the lesion, the involvement of bony and underlying structures. Histologically both epithelial and mesenchymal elements must be present for diagnosis. Histopathology reveals a tumour composed of islands of stellate and spindle cells in myxoid background. Variations may include squamous metaplasia, calcification, cartilage-like tissue, oxyphilic cells and rarely malignant transformation.

Pleomorphic adenomas in nasal cavity are rare. Sharma & Prasad (1974) reported a case arising from the lateral wall with involvement of maxilla. Singhal et al. (1989) described a lesion arising from side of tip of nose. Khurana et al. (1989) reported a case of pleomorphic adenoma of nasal septum, as did Sen et al. (2005). Ronald et al. (1973) studied cases of 492 tumours of minor salivary glands and found only 3 cases of pleomorphic adenoma of nasal cavity in 2 years. Gill & Rekhi (1968) reported a case of adenoma arising in the ethmoid sinus.

Local but adequate surgical excision is the treatment of choice and radical procedures are usually not needed. Diagnosis is primarily pathological as clinical examination is uncharacteristic. Suspicion during excision and a meticulous follow up of histopathology report is the key to diagnosis.

References

- 1 Dubey SP, Banerjee S, Ghosh LM, Roy S (1997) Benign pleomorphic adenoma of Larynx : Report of a case and review and

- analysis of 20 additional cases in literature. *Ear Nose Throat Journal* 76:548–57
- 2 Evan RW, Cruickshank AH. Quoted by Campango J, Wong RT (1977) Intranasal Mixed tumours(Pleomorphic adenoma): A clinical pathological study of 40 cases. *American Journal of Clinical Pathology* 68:213–18
 - 3 Gill BS, Rekhi BM (1968) Pleomorphic adenoma of nose – A Report. *Indian Journal Of Otolaryngology* 20:132
 - 4 Khurana AS, Bawa GW, Sharma KK, Khurana A (1989) Pleomorphic adenoma of Nasal septum. *Indian Journal of Otolaryngology* 41:74
 - 5 Kaur S., Thami GP, Nagarkar NM (2003) Pleomorphic adenoma of the hard palate. *Indian Journal of Dermatology Venerology & Leprology* 69:74–75
 - 6 Mathew et al. Quoted by Campango J, Wong RT (1977) Intranasal Mixed Tumours (Pleomorphic adenoma): A clinical pathological study of 40 cases. *American Journal of Clinical Pathology* 68:213–18
 - 7 Sen S, Saha S, Basu N (2005) Pleomorphic adenoma of nasal septum. *Indian Journal of Otolaryngology and Head Neck Surgery* 57:163–166