CASE REPORT

Pleomorphic adenoma of nasal septum: a rare case

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SUMMARY

The most common benign tumour of the major salivary glands is the pleomorphic adenoma. They are seen rarely in the minor salivary glands, usually in hard palate, soft palate and nasopharynx. Pleomorphic adenomas in nasal cavity are unusual and may be misdiagnosed because they have predominant myoepithelial cellularity and fewer myxoid stromata compared with those elsewhere. We present a case of 38-year-old male with a 2-year history of left nasal obstruction and epistaxis since 6 months. Diagnostic nasal endoscopic examination showed a soft lobulated mass in left nasal cavity attached to anterior part of the septum. Radiological examination demonstrated soft tissue mass filling left nasal cavity with an eroded septum. The biopsy from the mass was suggestive of pleomorphic adenoma and was resected endoscopically. Histopathological examination was consistent with pleomorphic adenoma. These are rare tumours of the nasal cavity and can be managed effectively with the endoscopic approach.

BACKGROUND

Pleomorphic adenoma or mixed tumour of the salivary gland constitutes 60% of all salivary gland neoplasms.

This mixed benign tumour mainly arises in the major salivary gland tumours, especially in the parotid gland and less frequently in accessory glands (35%).

Pleomorphic adenomas are very rare in nasal cavity, 80% of it is detected in nasal septum and remaining 20% in lateral wall though significant proportion of mucous and serous glands is confined to lateral nasal wall¹

According to Stevenson,² remnants of the vomeronasal organ, an epithelium-lined duct in the cartilaginous nasal septum degenerated in an early fetus, could be the reason for the appearance of these tumours in the nasal turbinate. Ersner and Saltzman³ suggested that the ectopic embryonic epithelialised cells on the nasal septum mucosa, which appeared during the migration of the nasal buds, are precursors of the septal pleomorphic adenomas.

Pleomorphic adenoma nasal septum originated from the matured salivary glandular tissue according to Evans and Cruikshank.⁴

CASE PRESENTATION

A 38-year-old male presented to our department with epistaxis and left-sided progressive nasal obstruction since 6 months.

Figure 1 Diagnostic nasal endoscopic examination showing reddish grey, soft painless mass arising from anterior part of septum.

INVESTIGATIONS

Diagnostic nasal endoscopic examination revealed reddish grey, soft painless mass arising from the anterior part of the septum (figure 1).

CT scan revealed a mildly enhancing soft tissue mass in the left nasal cavity with the eroded septum (figure 2).

A biopsy was taken that was reported to be pleomorphic adenoma (predominant myoepithelial variety).

DIFFERENTIAL DIAGNOSIS

- ▶ Inverted papilloma.
- ▶ Infected nasal polyp.
- ▶ Granulomatous conditions of nose.
- ▶ Sinonasal malignancy.

TREATMENT

Endoscopic wide excision of the nasal mass was done under general anaesthesia. The margin of

Figure 2 CT scan showing a mildly enhancing soft tissue mass in left nasal cavity with eroded septum.

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Figure 3 Endoscopic picture showing attached part of the nasal mass of the septum.

healthy mucosa around the attached site was resected and sent separately for HPE (figures 3 and 4).

Histopathological examination revealed stratified squamous epithelium overlying an encapsulated tumour composed of ducts, cords and tubules of epithelial cells surrounded by plasmacytoid myoepithelial cells; few squamous eddies melting into surrounding chondromyxoid stroma with few congested vessels which is consistent with pleomorphic adenoma (myoepithelial predominant) (figures 5 and 6).

OUTCOME AND FOLLOW-UP

There was no evidence of recurrence of the disease after 1 year of follow-up.

DISCUSSION

Denker and Kahler⁵ first reported the case of pleomorphic adenoma of the nasal cavity in 1929.

Large series studies of nasal pleomorphic adenomas include 59 cases reported by Wakami *et al*, 41 cases by Suzuki *et al* and 40 cases reported by Compagno and Wong.^{6,7}

These neoplasms affect females more than males. They are commonly seen in third to fourth decades of life.¹

Intranasal mixed tumours have a relatively low rate of recurrence (10%) because of the predominance of epithelial elements rather than stromal elements.⁶

Figure 4 Postresection specimen of nasal mass.

Figure 5 H&E 10x showing cartilage and foci of epithelial component. Arrow mark showing cartilage.

As it is a slow-growing tumour, symptoms appear after a long silent period. Patients commonly present with gradual worsening of unilateral nasal obstruction (71%) and occasional epistaxis (56%). Less commonly, external swelling of the nasal pyramid pain, epiphora and mucopurulent rhinorrhea may be present.⁶

Histologically, pleomorphic adenomas of the aero digestive tract are characterised by epithelial tissue mixed with mucoid or chondroid tissue appearance. They have high cellularity and lack of a stromal component, because of which they resemble aggressive epithelial tumours.⁶

Differential diagnosis of intranasal pleomorphic adenoma includes both benign and malignant tumours such as polyps, papillomas, angiofibromas, osteomas, squamous cell carcinoma, mucoepidermoid carcinoma, adenocarcinoma, adenoid cystic carcinoma, melanoma and olfactory esthesioneuroblastoma.

CT scan and MRI are useful imaging modalities that contribute to tumour mapping rather than diagnosing pleomorphic adenomas.^{8,9}

Various approaches have been used to achieve wide local clearance, and these include external rhinoplasty, lateral rhinotomy, midfacial degloving, intranasal and transnasal endoscopic.^{2,3,6}

Figure 6 H&E 40x high power view of the epithelial cells with interspersed mesenchymal element.

The advantages of endoscopic resection include less blood loss, no external scar. Midfacial degloving approach is preferred for larger mass since it has the advantage of wide exposure of the mass and direct approach to the nasal cavity.

A neoplasm arising from the nasal septum has a higher risk of malignancy compared with other sites in the nose. On rare occasions, pleomorphic adenoma can change into carcinoma ex-pleomorphic adenoma and has the potential to metastasize. The metastasis to bone is more common, but spread to lungs, regional lymph nodes and liver has also been seen. It has also been reported of metastasis to the submandibular lymph node, in a recurrent septal pleomorphic adenoma, 17 years after the first diagnosis.^{10–12}

Nevertheless, postoperative follow-up is needed in view of its potential for recurrence.⁶ In our case, the patient demonstrated

satisfactory results with no evidence of recurrence during 2-year follow-up.

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Learning points

- Pleomorphic adenomas of the nasal cavity are rare tumours.
- Compared with their major salivary gland tumour, they have predominant epithelial component than stromal component.
- These tumours have been misdiagnosed most of the time; hence, we suggest considering this diagnosis if patient presents with unilateral nasal obstruction and epistaxis.
- If the diagnosis is made early, complete excision of tumour and prevention to the local and distant spread of neoplastic cells is possible.
- The endoscopic approach is preferred compared with open surgery, as it allows complete control of the margins under direct vision and reduces the postoperative recovery period
- Long-term follow-up is mandatory, both endoscopic and radiological, as it has the potential for recurrence and to exclude malignancy even if a tumour appears to be clinically benign and resected completely.

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