

Pleomorphic adenoma of the nose

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ABSTRACT

Pleomorphic adenoma is the most common benign tumour of the major and minor salivary glands. The incidence in the other parts of the head and neck region is very low and in most of the cases, the lesion is located in the upper aerodigestive tract, namely the oral, pharyngeal and occasionally nasal cavity. Cases involving regions where minor salivary glands are not normally present are extremely rare. We report a 32-year-old Indian man, who presented with a progressive swelling at the tip of the nose for 6 months duration. The mass was excised and the histopathological examination revealed it to be pleomorphic adenoma.

Keywords: Benign, external, excision, neoplasm, nose

INTRODUCTION

Pleomorphic adenoma is the most common benign tumour of the salivary glands. It occurs primarily in the major salivary glands, such as parotid and submandibular glands. The incidence in the minor salivary glands is very rare, and very few reported cases are located in the larynx, pharynx, trachea, lacrimal glands and sinonasal tract. Primary pleomorphic adenomas located at sites other than aerodigestive tract, for example in the external nose are extremely rare. Although several intranasal pleomorphic adenomas have been

described, to our knowledge, this is the first few reported case of pleomorphic adenoma arising from the tip of the nose.

CASE REPORT

A 32-year-old Indian man presented with history of painless and gradually increasing swelling over the tip of nose for 6 months duration. There were no associated symptoms of pain and bleeding. Examination of the nose revealed a painless, firm and lobulated mass at the tip of nose. It was approximately 1cm x 1cm in size and covered by a thinned but intact skin. Anterior rhinoscopy revealed no abnormalities in the nasal cavity. There were no abnormalities in the examination of major salivary glands. No cervical lymphadenopathy

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was detected, and the remainder of the physical examination was within normal limits. Radiological assessment of the paranasal sinus revealed a mass confined to skin over the nasal tip without any cartilaginous or bony involvement.

List of provisional diagnoses includes dermoid cyst, chondroma and epidermoid cyst. Surgical excision of the mass was performed under local anaesthesia. A rounded, well-circumscribed, lobulated and encapsulated mass was removed. It was excised completely with intact capsule.

The postoperative course of the patient was uneventful. Follow up assessment showed the scar healed well and no sign of recurrence (Figure 1). The histopathological examination of the specimen revealed a pleomorphic adenoma, characterised by a fairly well-circumscribed tumour composed of an admixture of both epithelial and mesenchymal components. The epithelial components are predominantly arranged in tubules, acini and irregular sheets, which are intimately associated with chondromyxoid stroma (Figure 2).

DISCUSSION

Pleomorphic adenomas are benign, epithelium-derived tumours that have biphasic appearances resulting from a mixture of epithelium and stroma. Pleomorphic adenoma or mixed tumour is the most common neoplasm (50%) involving both the major and minor salivary glands.¹ Approximately 85% of pleomorphic adenomas occur in the parotid gland, 8% in the submandibular salivary gland, and 7% in the minor salivary glands.² They can rarely occur at other sites in the upper



Fig. 1: Healed surgical scar over the nasal tip indicating site of pleomorphic adenoma.

aerodigestive tract including the nasal cavity, pharynx, larynx, trachea and lacrimal glands.³ The nasal cavity is the most common site of involvement of pleomorphic adenoma in the upper respiratory tract.³ While pleomorphic adenoma in the skin is rare, it can be seen at various sites in the head and neck region including scalp, eyelids, nose, cheek, upper lip, external ear and external auditory canal.⁴

Pleomorphic adenoma of the skin in the head and neck region may originate from sebaceous glands, sweat glands, ectopic salivary glands, minor salivary glands or metastasis tumour.⁴ Those arising from minor salivary glands can be seen at any sites where these glands are located: palate, lips, buccal mucosa, tongue, floor of the mouth, retromo-

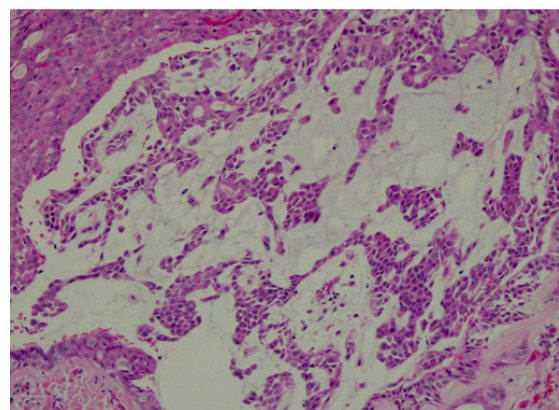


Fig. 2: An intimate mixture of epithelial and chondromyxoid stromal matrix.

lar trigone, oropharynx, nasal cavities and paranasal sinuses.⁵ In our case, the pleomorphic adenoma originated from the tip of nasal skin, which is an unusual site for such a neoplasm.

Narozny *et al* in 2005 analysed eight cases of pleomorphic adenoma of the nose. They predominantly were found in men (5/8), with age range from 21 to 62 years, and the tumours were located mainly on the left side. The most common symptoms were unilateral or bilateral nasal obstruction and headache, and their duration ranged from 3-months to 10 years.⁶

Pleomorphic adenoma of the skin in the head and neck region may originate from sebaceous glands, sweat glands, or ectopic salivary glands. It has never been reported to metastasize to the skin. In the present case, the tumour seemed to develop from the sebaceous or sweat glands of the skin of the face.⁷

Although incisional biopsy and fine needle aspiration biopsy are performed in some cases, surgical excision is commonly the first procedure.⁸ It is suggested that pre-operative needle aspiration biopsy or incisional biopsy are contraindicated in any pleomorphic adenoma, as implantation of tumour cells may lead to recurrence.⁸ Owing to its rarity, the exact diagnosis of pleomorphic adenoma on the face, including the nasal tip, is difficult to make before the histopathologic examination.

The treatment of pleomorphic adenoma of the nose, like in other locations, is surgical which is total removal with a margin

of surrounding healthy tissue. In our patient, no local recurrence was observed during the 14 months follow-up. Clinical observation of pleomorphic adenomas of the head and neck showed that despite no essential differences between pleomorphic adenomas of the major and minor salivary glands, those located in the nose and paranasal sinuses should be considered as potentially malignant and treated with radical surgery.⁹ Recurrences may occur as with pleomorphic adenoma of major salivary glands.

The recurrence rate for benign tumours of parotid glands was reported to be high as 45% after enucleation.¹⁰ The high recurrence rate after enucleation led to a change in treatment philosophy. The enucleation technique was replaced by a superficial parotidectomy for tumours in the superficial lobe and the recurrence rate decreased to 2% to 5%.¹⁰ Recurrence is thought to be due to detachment of small projections through the incomplete capsule or tumour spillage during the operation. This could be related to the histological characteristics of the chondromyxoid stroma present in pleomorphic adenoma, which could be easily spilled into the surgical field, providing a focus for recurrence.⁸

The risk of malignant transformation of pleomorphic adenoma is time dependent, with a risk of 1.6% for those present for less than five years, rising to 9.6% for those present for more than 15 years.¹¹ The risk is increased by delayed diagnosis.

A histopathologically confirmed case of adenoid cystic and squamous carcinomatous differentiation has been reported.¹² There has also been a report of metastasis to the sub-

mandibular lymph node, in a patient with recurrent septal pleomorphic adenoma that happened 17 years after the initial diagnosis. Pulmonary, hepatic and bone metastases have also been reported.¹³

An iatrogenic theory has been proposed for case of tumour recurrence.¹⁴ This theory suggested that metastasis occurs as a result of incomplete excision or inadvertent disruption of the tumour with consequent spread through haematogenous or lymphatic routes. Long-term follow-up is therefore necessary for recurrences by endoscopic examination followed by imaging (CT or MR).

In conclusion, it is important to consider pleomorphic adenoma in the presence of a slow-growing unilateral mass of the nose, even if it is not frequently encountered in clinical practice. Early diagnosis offers the possibility of a more complete excision with adequate care being taken not to disrupt the tumour in order to prevent local and distant spread of neoplastic cells. Long-term follow-up, both clinical and radiological is mandatory to exclude malignancy, even if the tumour appears to be clinically benign with complete resection.

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