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Pathology in Focus

Pleomorphic adenoma of the nasal septum

P. JASSAR, F.R.C.S.(ED.), N. D. STAFFORD, F.R.C.S., A. W. MACDONALD, F.R.C.PATH.*

Abstract
Pleomorphic adenoma is the commonest benign tumour of the major salivary glands. It can also occur in minor salivary glands, mainly in the oral cavity, but also in other sites in the head and neck both within and outwith the upper aerodigestive tract. We present a rare case of pleomorphic adenoma of the nasal septum with consideration of the clinical management and a review of the literature.

Key words: Nasal septum; Salivary gland neoplasms; Adenoma, pleomorphic

Case report

A 71-year-old lady presented with a four-week history of right nasal blockage, frontal headaches, and symptoms of right Eustachian tube dysfunction. She had undergone a right nasal polypectomy 12 years previously, histological examination at that time showed features consistent with a pleomorphic adenoma. No comment had been made on margins of clearance, despite this she had not been followed up.

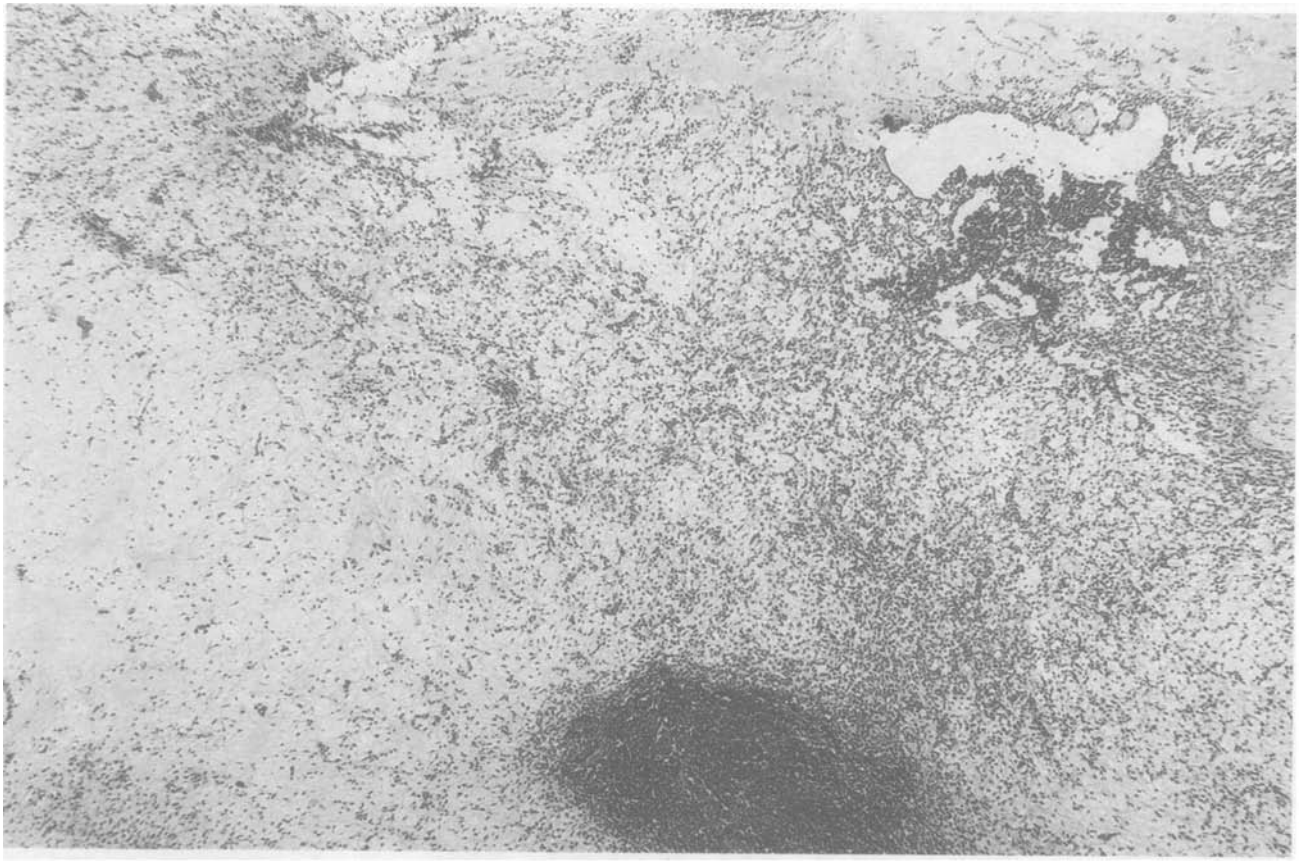

FIG. 1
Pleomorphic adenoma showing varying cellularity with large areas of stroma (H & E; × 40).

From the Academic Department of Otolaryngology/Head and Neck Surgery, Hull Royal Infirmary, Hull and the Department of Histopathology*, Castle Hill Hospital, Cottingham, UK.
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On this occasion examination revealed a large fleshy polyp totally obstructing the right nasal airway. It was attached by a narrow pedicle to the mucosa of the cartilaginous septum. This was removed intranasally and a $2 \times 2 \times 1$ cm soft, pale polyp sent for histological examination. This lesion also had histological characteristics of a pleomorphic adenoma, this was confirmed on immunohistochemical staining with CAM 5.2 and S100 antibodies. Four weeks later the patient had experienced no further problems with her nasal airway. Because of the known propensity of a pleomorphic adenoma to recur and in view of the likelihood that this tumour represented a recurrent lesion the patient is being kept under review.

Discussion

Pleomorphic adenomas arising from sites other than the major salivary glands, (80 per cent in the parotid), are usually in the minor salivary glands of the hard and soft palate (Shaheen, 1997). Rarely they can occur in other sites in the upper aerodigestive tract including the nasal cavity, pharynx, larynx, trachea and lacrimal glands (Suzuki *et al.*, 1990). Primary tumours in the head and neck, but outside of the aerodigestive tract are exceptionally rare. Pleomorphic adenoma of the external nose (Badia *et al.*, 1996), and the external auditory canal (Suzuki *et al.*, 1991) have been reported. Histologically pleomorphic adenomas in any site are characterized by a lobular architecture consisting of a loose chondromyxoid stroma (Figure 1). The cellular component is made up of small rounded epithelial cells and slightly spindled myoepithelial cells (Figure 2). Immuno-histochemical staining for low molecular weight cytokeratin with CAM 5.2 highlights the rounded epithelial cells. The myoepithelial cells are highlighted by immuno-histochemical staining using the S100 antibody. Both these cell types can either lie loose in the stroma or form cysts and ducts with a lining of epithelial cells surrounded by a more solid mass of myoepithelial cells as in the normal salivary gland.

In a review of 41 cases of pleomorphic adenomas of the nasal cavity in Japan, a preponderance of females was found but there was no difference in the side of the nose affected. Chief complaints were represented mostly by nasal obstruction (71 per cent), and nasal bleeding (56 per cent); 9.8 per cent originated in the lateral wall of the nasal cavity and all the other cases arose from the nasal septum (Suzuki *et al.*, 1990). These findings agree with two similar reviews by Compango and Wong (1977) (40 cases, USA), and Wakami *et al.* (1996) (59 cases, Japan). Despite their benign nature, the potential for pleomorphic adenomas to recur is well known (Freeman *et al.*, 1990). This is also true for pleomorphic adenomas in the nasal cavity. In their reviews, recurrent tumours were seen by Suzuki *et al.* (1991), Compango and Wong (1977) and Wakami *et al.* (1996), in one, three and four cases respectively. There have also been two reports of carcinoma arising in pleomorphic adenoma in the nasal cavity (Cho *et al.*, 1995).

It is widely agreed that the treatment of choice for pleomorphic adenoma in the nasal cavity is local surgical excision with histologically clear margins (Compango and Wong, 1977; Suzuki *et al.*, 1990; Couloigner *et al.*, 1993). Approaches depend on size and location and include intranasal excision (Wakami *et al.*, 1996), facial degloving (Castello *et al.*, 1996), and lateral rhinotomy (Worthington, 1977; Nonomura, 1992). Pleomorphic adenomas should be

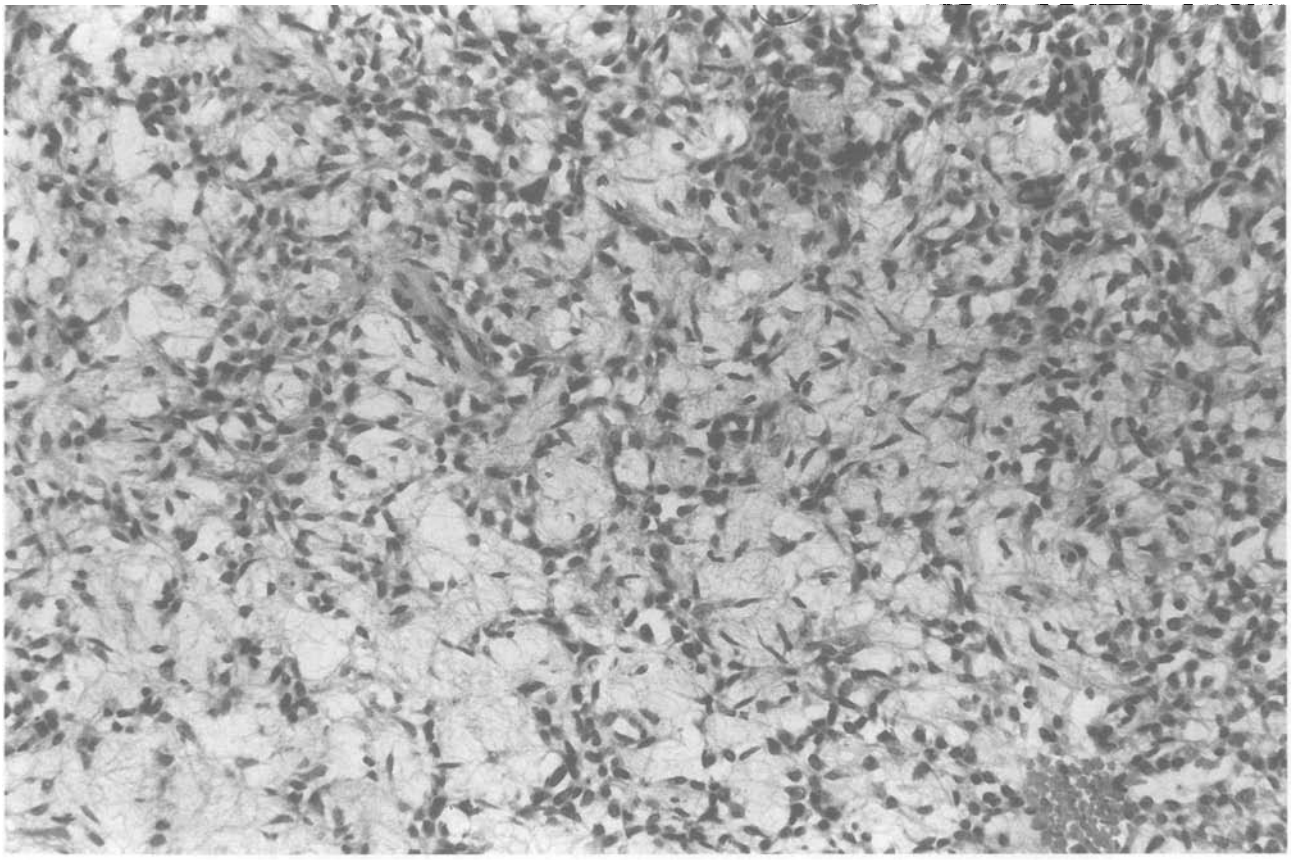

FIG. 2

Pleomorphic adenoma showing chondromyxoid stroma, polygonal epithelial cells and spindled myoepithelial cells (H & E; × 200).

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considered in the differential diagnosis of nasal tumours and, in view of their potential for recurrence, cases should be kept under review.

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Address for correspondence:
Mr P. Jassar,
15 Weedling Gate,
Stutton,
Tadcaster LS24 9BS.