CASE REPORT

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Adenoid cystic carcinoma of the nasal septum*

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SUMMARY

Adenoid cystic carcinoma is a malignant tumour frequently described arising from seromucinous salivary tissue in the major and minor salivary glands. Within the nasal cavity, it is uncommon and usually involves the lateral wall. A rare case of adenoid cystic carcinoma of the nasal septum is presented along with a review of the literature. The presentation and management of this uncommon condition is discussed.

Key words: nasal septum, adenoid cystic carcinoma, nasal cavity, malignant tumours.

INTRODUCTION

Malignancies arising within the nasal cavities are uncommon. These tumours arise from both paranasal sinuses and the nasal cavity, and form approximately 3% of all upper aerodigestive tract malignancies. Adenoid cystic carcinoma is most commonly described as arising from the seromucinous salivary tissue, in the major and minor salivary glands. It is rare for this tumour to arise within the nasal cavity where the lateral nasal wall is the commonest site. In the literature to date only 3 cases of adenoid cystic carcinoma arising from the nasal septum have been reported (Fleury et al., 1979; Handa et al., 1992).

CASE REPORT

A 64-year-old lady presented with unilateral recurrent epistaxis and nasal obstruction. Examination revealed a sessile tumour measuring 0.5 x 0.5 cm arising from the left side of the nasal septum. Remaining routine examinations were unremarkable. An excision biopsy of the lesion was performed under general anaesthesia. Histology showed the typical appearances of an adenoid cystic carcinoma with an infiltrating, unencapsulated lesion composed of islands of cytologically bland cells with hyperchromatic nuclei arranged around cystic spaces containing a mucoid substance (Figure 1). Perineural infiltration was not identified. Further investigations including CT scanning did not add any further information. She was subsequently readmitted for wide excision of the tumour via a lateral rhinotomy approach, and post-operative radiotherapy is planned.

DISCUSSION

Adenoid cystic carcinoma is the second most common malignant tumour of salivary tissue. It is reported to occur at any age group with a peak incidence in the fourth to sixth decades and slight predominance in female. Clinically it is likely to present as a slow growing tender mass when it involves major salivary glands (parotid or submandibular). Within the nasal cavity the symptoms are generally non-specific with nasal obstruction and recurrent epistaxis reported.

Histologically the tumours are composed of infiltrating, uniform, basaloid epithelial cells arranged in nests and cords and associated with abundant mucoid material forming pseudocysts. Perineural invasion is almost invariably present. Three

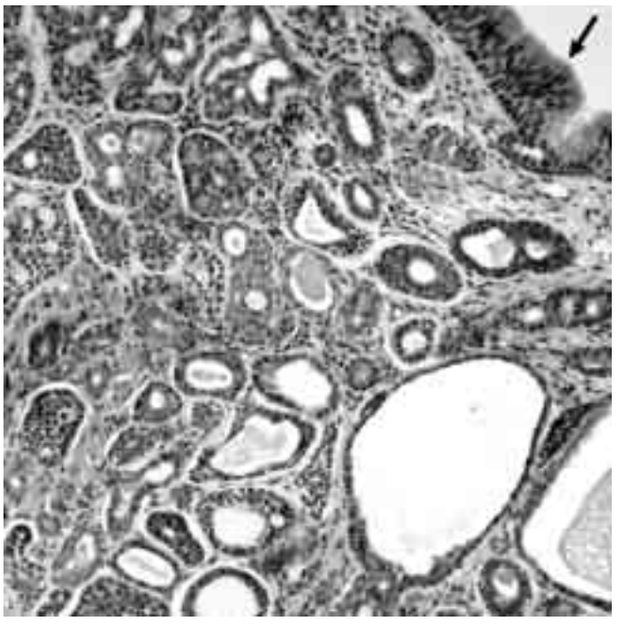

Figure 1. Histological section illustrating nasal mucosa, lined by respiratory epithelium (arrow), beneath which is an infiltrating tumour composed of nests of cytologically bland cells arranged around gland-like spaces. The appearances are typical of the cribriform variant of adenoid cystic carcinoma (haematoxylin-eosin; X10 objective lens).

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architectural growth patterns, cribriform, tubular or solid (anaplastic), have been described. Of these, all may be present in any one tumour with cribriform the most frequently encountered (Spiro et al., 1974; Perzin et al., 1978). Assessment of the histological grade is of significance in predicting the likelihood of tumour recurrence and survival. In one series 5-year recurrence rates of 59%, 89% and 100% were reported for tumours with tubular, cribriform or solid growth patterns respectively (Perzin et al., 1978). Similarly, the presence of greater than 30% solid growth has been reported to have a significantly poorer 5-year survival (5%) when compared to tumours with a predominantly cribriform (26%) or tubular (39%) growth pattern (Szanto et al., 1984; Batsakis et al., 1990; Umeno et al., 1997). Furthermore there is a higher incidence of metastases (most commonly to the lung) associated with tumours with a solid growth pattern (Tran et al., 1989).

Table 1. Staging of nasal cavity malignancy.

Tumor Stage	Extent of involvement
Tis	Tumor in situ
T1	Tumor confined to site of origin (eg, septum or turbinate alone)
T2	Tumor extends to adjacent connectivetissue such as nasolacrimal duct or lateral nasal wall
T3	Tumor extends to adjactent organs/structures such as choana, hard palate, frontal or sphenoid sinus, nasopharynx, or skull base
T4	Tumours with further extent such as anterior cranial fossa, orbital contents, or oral cavity

The Harvard Medical School (Table 1) has described a staging system for nasal septum malignancies (Bhattacharyya, 2002), but the overall literature is small, and there are no clear guidelines as to the best initial management or likely overall survival and prognosis. The high incidence of local recurrence reported for these tumours reflects their infiltrative growth. As such treatment modalities combining primary excision with post-operative radiotherapy appear to achieve more satisfactory local control when compared to either surgery or radiotherapy in isolation. Additional factors reported to influence the prognosis are tumour morphology, size and lymph node metastases (Perzin et al., 1978; Szanto et al., 1984).

In conclusion, the malignancy such as one described is rare. As with other nasal septal malignancies initial presenting symptoms tends to be non-specific. Epistaxis is, however, a common symptom in overall practice and clearly the majority of the cases of epistaxis are not related to nasal malignancy but it is important that the diagnosis is borne in mind if these tumours are to be diagnosed early and treated with a satisfactory outcome.

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