Benign fibrous histiocytoma of the nasal septum*

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SUMMARY

Among the non-epithelial tumours of the nasal cavity, paranasal sinuses and nasopharynx, fibrous histiocytoma is rarely encountered. A 45 year-old male patient complaining about nasal obstruction and nasal swelling was seen in the hospital ENT department. On examination, there was a mass located on the right anterior part of the nasal septum, about 2× 1× 1 cm in size. The pathologic diagnosis was benign fibrous histiocytoma. In this article we discuss the clinical, radiological, histopathological characteristics of fibrous histiocytoma and its differential diagnosis.

Key words: Fibrous histiocytoma, benign, nasal septum, nasal cavity.

INTRODUCTION

The fibrohistiocytic lesions, including fibrous histiocytomas (FH), have been recognised as a separate soft-tissue tumour group since the early 1960's (Rosai, 1996). FH occur in the skin and deep soft tissues of the head and neck, extremities, and retroperitoneum. Involvement of the nasal cavity, paranasal sinuses and nasopharynx is unusual (Damjanow and Linder, 1996). Perzin and Fu (1980) reported the first case of benign fibrous histiocytoma in the nasal cavity. To the best of our knowledge, this paper presents the first case report of a benign fibrous histiocytoma involving the nasal septum.

CASE REPORT

A 45 year-old male patient was admitted to the hospital ENT department with a history of two years of a slowly enlarging nasal mass and gradually increasing nasal obstruction on the right side. Past history was unremarkable. Physical examination revealed a submucosal mass on the right anterior side of the nasal septum (Fig. 1). The mass was firm, non-tender, and smooth. The remainder of the results of physical examination and all clinical laboratory determinations were within normal limits. Computerised tomography (CT) scans with enhancement, performed in the coronal plane, showed a solid mass on the right anterior part of the nasal septum (Fig. 2).

The mass was excised totally under local anaesthesia. No apparent change of the nasal septal cartilages was noted. The first pathological diagnosis was reported as angiofibroma. Owing to the age of the patient, contrast characteristics on CT scans, unusual location of the mass for an angiofibroma, and minimal bleeding during the intervention, we decided to obtain further histological opinion.

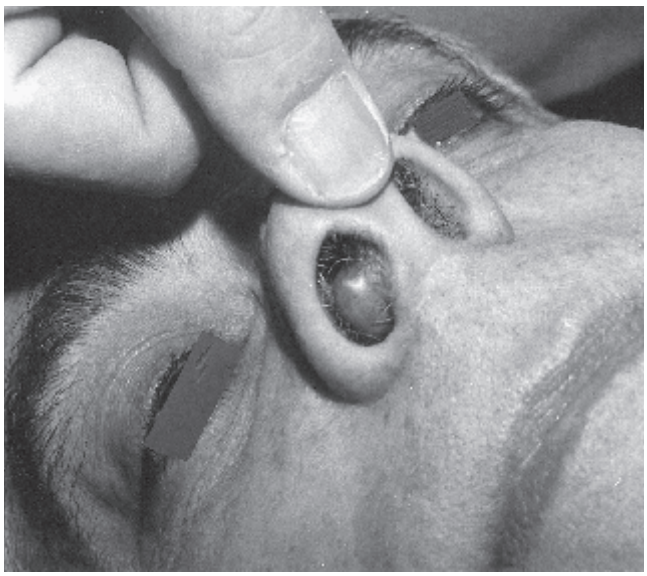

Figure 1. A polypoid mass located on anterior part of the nasal septum.

Pathologic examination

Grossly, the mass measured 1.5 × 1.5 × 1 cm and was not encapsulated (Fig. 3). The cut surface was brown with small irregularly distributed grey-white areas. The neoplasm was mainly composed of diffuse areas containing an admixture of spindle fibroblastic cells and histiocytes accompanied by rare Touton multinucleated giant cells, foamy histiocytes and hemosiderin-laden macrophages (Fig. 4). In some areas, a storiform pattern of the fibroblasts was present (Fig. 5). The tumour nuclei

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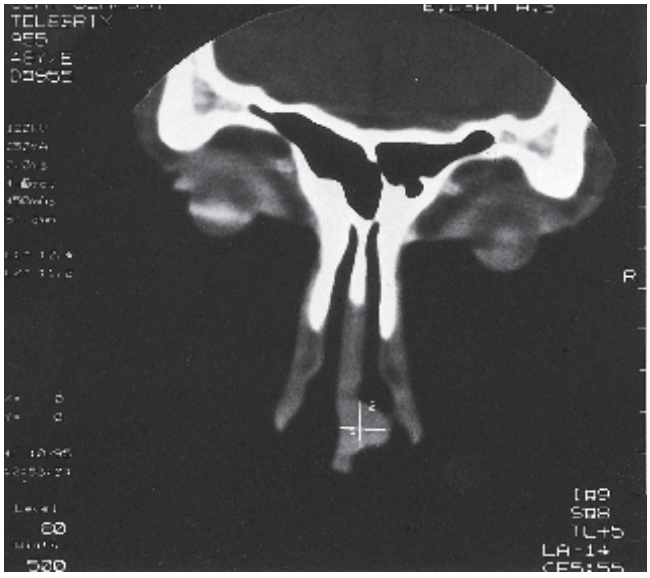

Figure 2. Computerised tomography shows a soft tissue mass originated from the mucosa of anterior part of the nasal septum.

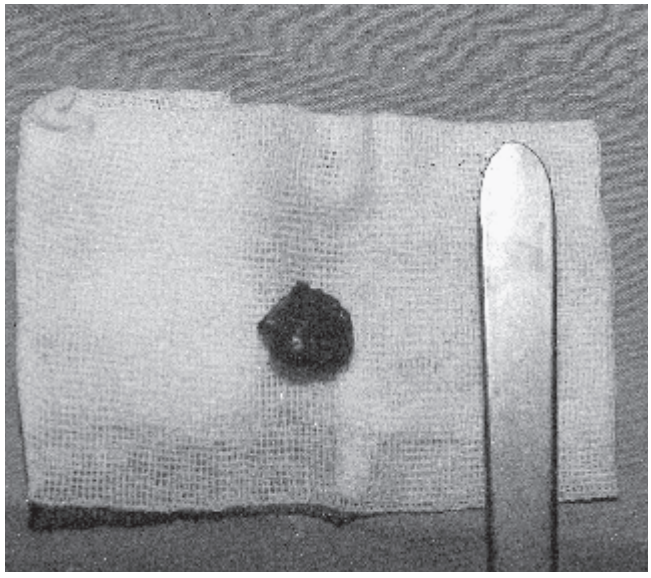

Figure 3. Totally excised tumour: brownish-red in colour and solitary in shape.

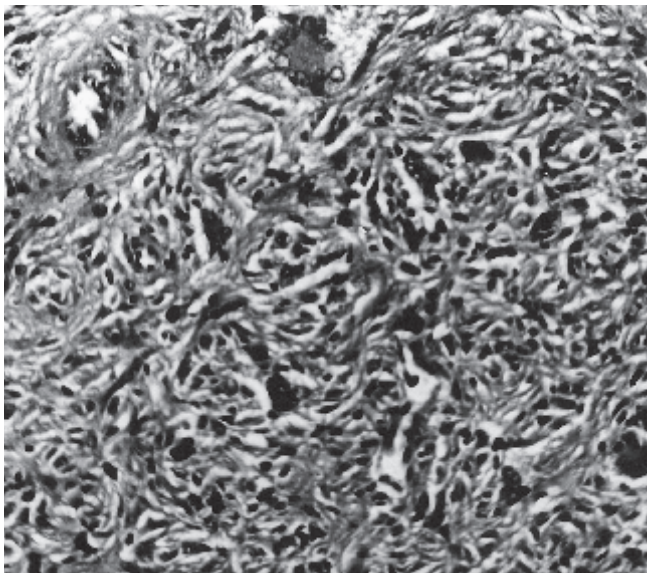

Figure 4. Multinucleated giant cells (HE X 250).

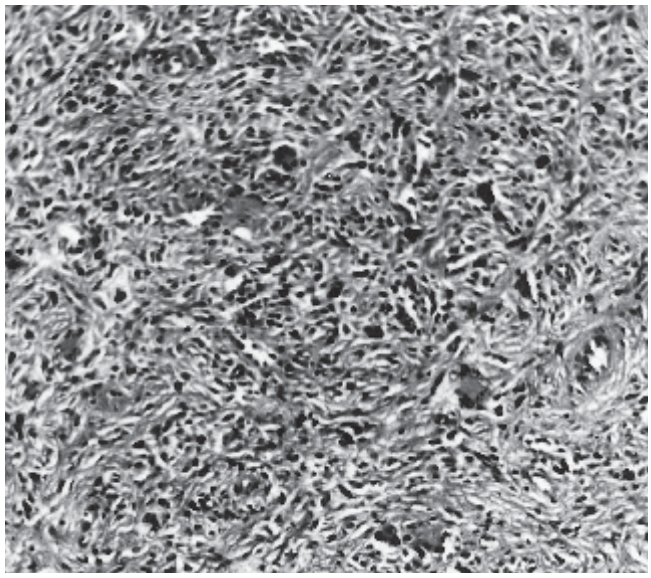

Figure 5. Storiform pattern in benign fibrous histiocytoma (HE X 125).

showed no pleomorphism and no atypical mitoses were observed. The diagnosis was benign fibrous histiocytoma (BFH).
The patient was offered to have a second operation but he refused, saying that he had no complaints. A three-year follow-up showed no recurrence.

DISCUSSION

Fibrous histiocytomas arise mostly from the skin and subcutaneous tissue (Townsend et al., 1973). Involvement of the nasal cavity and paranasal sinuses is very unusual (Rice et al., 1974). Most of the reported tumours in this area have only recently appeared in the literature. The first two cases of BFH in the nasal cavity were reported by Perzin and Fu (1980). These tumours were relatively small polypoid masses projecting into the nasal cavity, one of which was attached to the upper lateral cartilage. Townsend et al. reported the first case of a FH involving the paranasal sinuses in 1973. This is the first report, as far as we know, of such a tumour involving the nasal septum.

Fibrous histiocytomas involving the nasal cavity, paranasal sinuses and nasopharynx may have varying degrees of clinical features. Generally there is no history of pain and the only sign of a neoplasm is a rapidly enlarging mass (Townsend et al., 1973). Other symptoms include nasal obstruction, swelling in the affected area, nasal discharge, epistaxis and loosening of teeth as well as facial asymmetry and proptosis (Perzin and Fu, 1980).
On postcontrast CT scans, these tumours usually enhance moderately or not at all (Som, 1991). If aggressive bone destruction dominates the CT appearance it is difficult to differentiate these lesions from some malignant lesions located in the sinonasal cavity such as squamous cell carcinoma (Som, 1991). The diagnosis of FH is based mainly on histologic findings. However, for many histiocytic tumours the determination of malignancy by histologic findings alone may be difficult (Del-Rey and De-La-Torre, 1980; Hakimi et al., 1975; Perzin and Fu, 1980; Shearer et al., 1973). Electron microscopy and histochemical testing may be necessary for a definitive diagnosis (Som, 1991). The histolo-

gical criteria for diagnosing a FH include fibroblastic and histiocytic elements in the tumour. The fibroblasts often produce a storiform pattern at least in some areas. The histiocytes are often found as multinucleated giant cells (Damjanow and Linder, 1996; Perzin and Fu, 1980; Rosai, 1996). In differential diagnosis, the vascular tumours which are the most common non-epithelial tumours of this area should be considered (Del-Rey and De-La-Torre, 1980; Perzin and Fu, 1980; Rice et al., 1974; Zukerberg et al., 1991). Fusiform cells within the vascular pattern may cause diagnostic difficulties. In our case, the first pathologic report was angiofibroma. The reason for the misdiagnosis was the occurrence of intense vascular structures in the tumour. The other pathologic condition that may cause diagnostic error is a nasal polyp (Del-Rey and De-La-Torre, 1980; Dundar et al., 1990; Perzin and Fu, 1980; Rice et al., 1974; Townsend et al., 1973).

Because fibrous histiocytomas frequently cause local problems, such as local invasion and local recurrence, the current treatment of choice is wide surgical excision (Perzin and Fu, 1980). Although this kind of excision was not performed, our patient has no evidence of recurrence after three years.

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