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Nasopharyngeal lipoma – a rare clinico-pathological entity

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Abstract
A lipoma situated within the posterior wall of the nasopharynx is reported. Only three lipomas of the nasopharynx in adults have previously been reported. The value of CT scan and cytology in making the pre-operative diagnosis of a lipoma at this location is discussed.

Key words: Nasopharyngeal neoplasms; Lipoma

Case report

A 50-year-old female presented to the Department of Otolaryngology at Groote Schuur Hospital with a six-month history of left-sided nasal obstruction, left-sided dysphagia for solids and nasal obstruction interfering with breathing during sleep. She did not have a history of pain, deafness, rhinorrhoea or epistaxis.

Clinical examination and flexible nasopharyngeal endoscopy revealed a sessile mass arising from the left half of the posterior wall of the nasopharynx, extending from the roof of the nasopharynx to 1 cm below the level of the hard palate. The mass was covered with normal mucosa. On palpation it was smooth, firm, non-tender and non-pulsatile. The patient did not have middle ear effusions, cranial nerve palsies, a Horner's syndrome or cervical lymphadenopathy.

There was no evidence of bone erosion on the lateral cervical spine X-rays. An intravenous contrast enhanced CT scan demonstrated a well circumscribed tumour in the nasopharynx with a diameter of 2.5 cm and a length of 4 cm. There was no parapharyngeal lymphadenopathy or bone erosion. The tumour had a density of −117 Hounsfield units. The CT findings were strongly suggestive of an encapsulated lipoma (Figure 1).

Peroral fine needle aspiration cytology (FNAC) of the tumour showed microbiopsies of adipose tissue incorporating prominent arterioles (Figure 2). Despite the fact that lipomas of the nasopharynx are extremely rare (Puri *et al.*, 1979; Oddie and Applebaum, 1982; Grybauskas and Shugar, 1983), a cytological diagnosis of lipoma was suggested. Histological examination of a peroral punch biopsy supported the radiological and cytological diagnosis of a lipoma.

The tumour was resected transorally by a combination of sharp and blunt dissection. The tumour was situated in a plane between the prevertebral fascia and the pharyngeal constrictor muscles.

Histopathological examination of the resected tumour showed scanty striated muscle adjacent to abundant mature adult adipose tissue with prominent blood vessels. If neoplastic, it was benign and in keeping with a lipoma.

Discussion

Lipomas are common tumours and can occur in almost any location in the body. They occur most commonly in the fifth and sixth decades in superficial sites that contain abundant fat such as in the subcutaneous regions, the retroperitoneum and the omentum; deep seated lipomas are much less common (Enziger and Weiss, 1988).

Only three lipomas of the nasopharynx in adults have previously been reported (Puri *et al.*, 1979; Oddie and Applebaum, 1982; Grybauskas and Shugar, 1983). In a review of 256 nonepithelial neoplasms of the nasal cavity, sinuses and nasopharynx, Fu and Perzin (1977) described only a single lipoma that was situated in the maxillary sinus. Lipomas of the maxillary antrum have also been reported by Goldstein (1915) and Silbernagel (1938). Single cases of congenital lipomas of the nasal septum

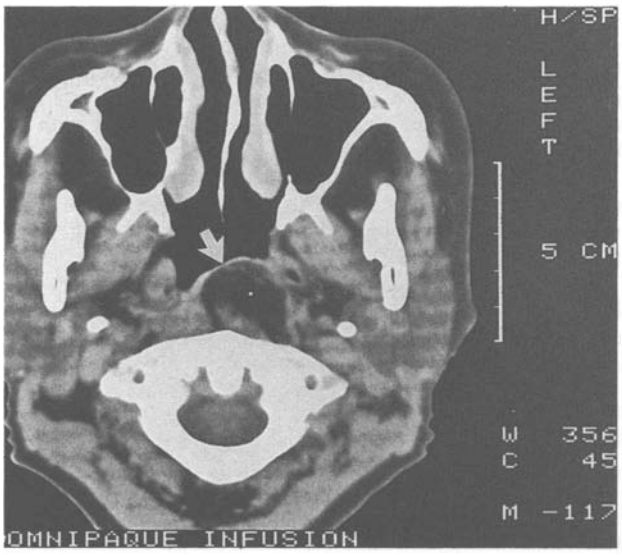

FIG. 1
Contrast enhanced CT scan of the nasopharynx demonstrating the well encapsulated lipoma (arrowed).

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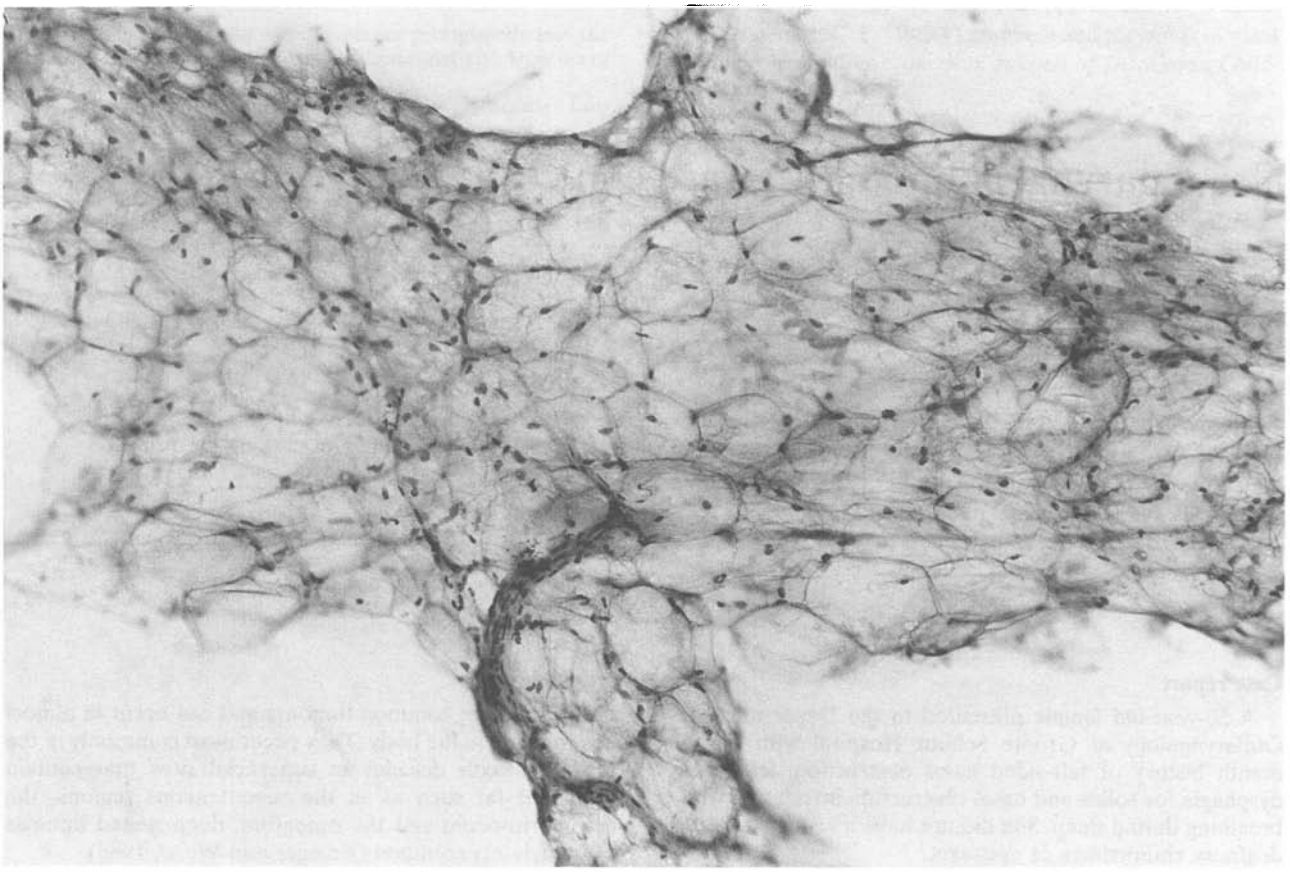

FIG. 2
FNAC of the lipoma (Papanicolaou stain × 100) shows mature adipose tissue incorporating prominent arterioles.

(Preece *et al.*, 1988), nasal cavity (Chmielik and Stelgowska-Piorkowska, 1993) and nasopharynx (Chernaivskii, 1967) have also been reported. The rarity of these tumours in the nasal cavity, paranasal sinuses and the nasopharynx has been ascribed to the paucity of adipose tissue in this area (Fu and Perzin, 1977).

The contrast-enhanced CT scan was of diagnostic assistance in this patient. The degree of encapsulation, lack of bony destruction and absence of lymphadenopathy made a diagnosis of a malignant tumour unlikely and the density of the mass (−117 HU) was consistent with a lipoma.

We have made frequent use of cytology for the evaluation of tumours of the nasopharynx, principally by way of cytobrush technique and occasionally by FNAC (Learmonth *et al.*, 1990; Warner-Learmonth *et al.*, 1993). That this tumour was correctly diagnosed pre-operatively by FNAC as a lipoma, underscores the value of having an experienced cytopathologist available to assist with the evaluation of postnasal space tumours.

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