

Parapharyngeal lipoma

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Abstract

Lipomatous tumours of the parapharyngeal space are rare. A case of lipoma of the parapharyngeal space is reported for its rarity, characteristic radiological findings, and effect on growth of the facial bones.

Introduction

Tumours of the parapharyngeal space present a considerable diagnostic and therapeutic challenge. The advent of computerized tomography has helped in precisely assessing the site and extent of these tumours and their probable histology (Som *et al.*, 1981). An accurate pre-operative evaluation is useful in planning the surgical approach. Tumours of the parapharyngeal space represent a wide spectrum of pathology, either arising primarily within or secondarily invading it from surrounding structures. These lesions include tumours of salivary gland origin, neurogenic tumours, chemodectomas and metastatic lesions. Lipomatous tumours are uncommon in this area; of the lipomatous tumours in the head and neck, most are found in the superficial tissues (Das Gupta, 1970). Lipomas of the deep tissues in head and neck are rare.

Case report

A 12-year-old female child presented with a gradually pro-

gressive, painless swelling on the right side of the face and upper neck for five years. The patient also complained of some difficulty in swallowing. There was no other significant medical history. The general and systematic physical examination of the patient did not reveal any other abnormality.

Local examination revealed a large 5 × 8 cm swelling occupying right side of face and the upper neck (Fig. 1). It extended from the temporal fossa superiorly (2 cm above the zygomatic arch) to 2 cm below the angle of mandible. Antero-posteriorly it extended from the nasofacial groove to the tragus. The swelling was soft and the overlying skin was normal. The parotid gland could be palpated superficial to the mass. The ramus of the mandible also showed an outward expansion. Throat examination revealed the right lateral pharyngeal wall to be pushed medially. The uvula was also found to be pushed to the opposite side. There was fullness of the buccal mucosa because of swelling between the ramus of mandible and the maxilla. X-rays of skull and paranasal sinuses (Fig. 2) revealed erosion of the ramus of mandible with a large radiolucent area, pushing the posterolateral wall of maxilla medially. A CT scan (Fig. 3) revealed low attenuation area in the right parapharyngeal space extending up to the base of skull. The low



FIG. 1
Clinical photograph of the patient.

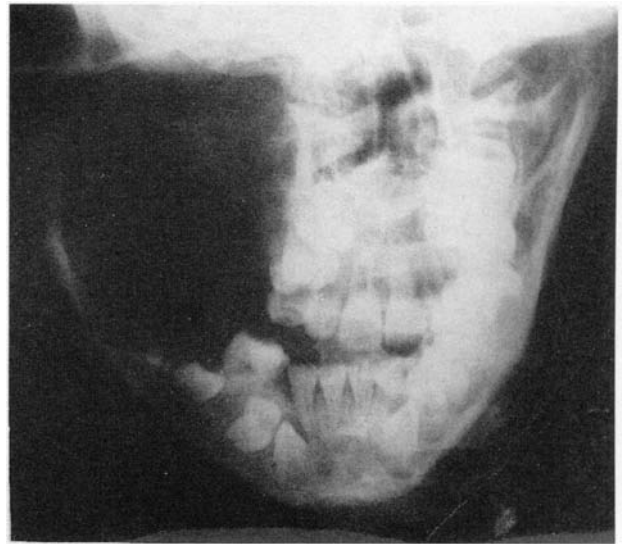


FIG. 2
X-ray of skull showing large radiolucent area pushing the posterolateral wall of maxilla medially and expanding the ramus of mandible outwards.

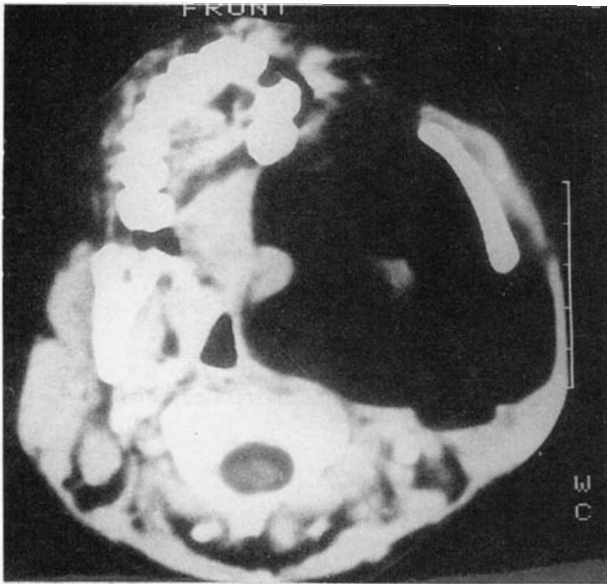


FIG. 3

Axial CT of skull showing low attenuation area with pressure effects on maxilla and mandible.

attenuation values were consistent with adipose tissue. The patient underwent excision of the parapharyngeal mass under general anaesthesia via a transparotid approach. The facial nerve branches were carefully preserved while carrying out a total parotidectomy. The ramus of the mandible was found to be thinned and expanded outwards by the lesion. The mass was excised *in toto* (Fig. 4). Histopathology confirmed it to be a lipoma (Fig. 5).



FIG. 4
Excised tumour.

The patient made an uneventful recovery and had only minor facial weakness in the immediate post-operative period. One year following surgery, there was no recurrence of the lesion and facial nerve function had completely recovered.

Discussion

Although approximately 13 per cent of lipomas occur in the head and neck, most of them are found in the subcutaneous tissues. Lipomas have been previously reported in the oral cavity, parotid gland, hypopharynx, larynx, nasopharynx, and intracranially (Oddie and Applebaum, 1982; Scherl *et al.*, 1986) in addition to the parapharyngeal space (Kennedy *et al.*, 1990).

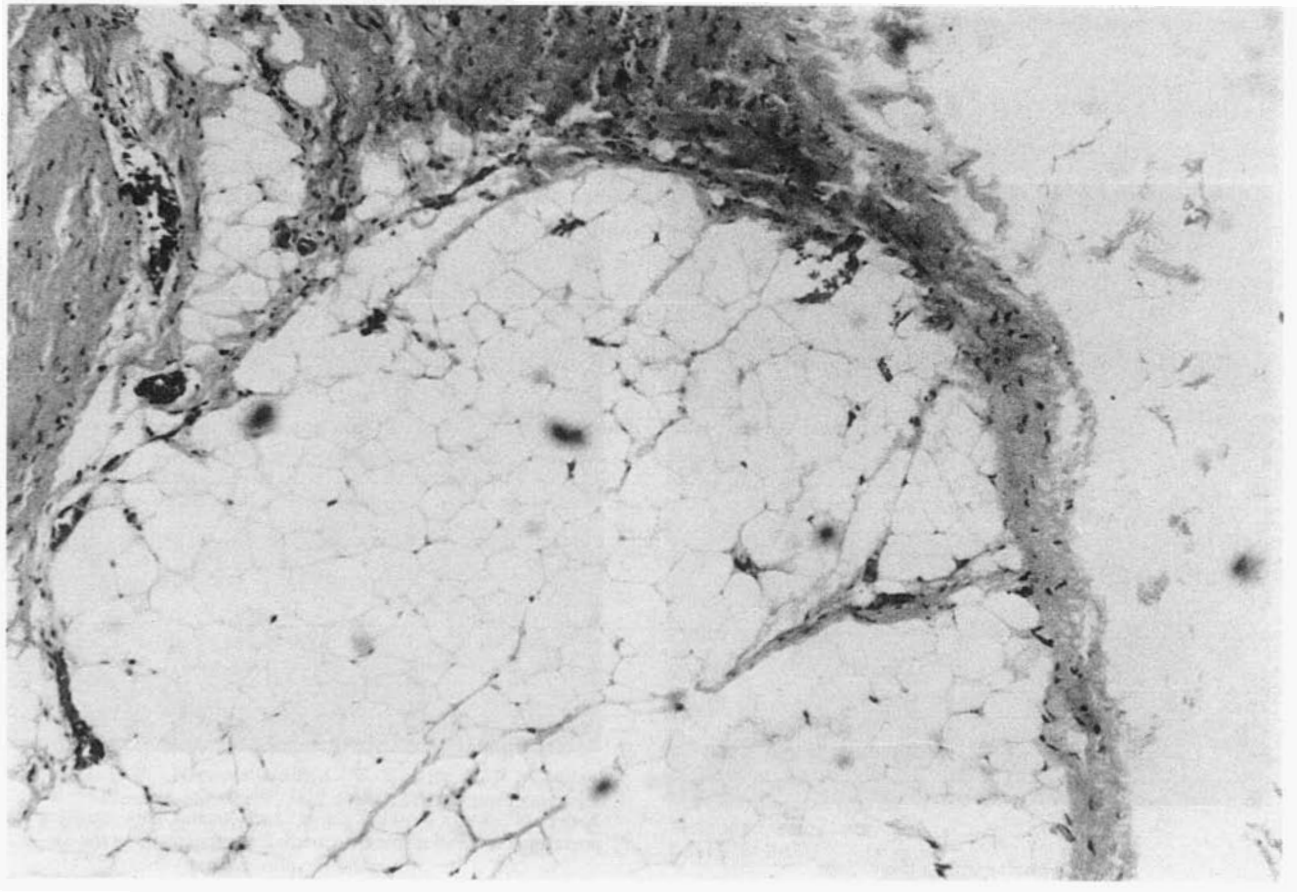


FIG. 5

Photomicrography of the histopathology features.

Lipomas consist of adipose tissue cells separated by fibrous trabeculae and circumscribed by a delicate fibrous capsule. If the amount of fibrous tissue is considerable, the designation of fibrolipoma is used (Barnes, 1985). Most of lipomas are well encapsulated and recur locally in 5 per cent cases (Einzinger and Weiss, 1983). However, intramuscular lipomas are poorly encapsulated, and complete excision is difficult due to diffuse muscular infiltration and hence, have high recurrence rate (Dionne and Seemayer, 1974). Histologically, these tumours are completely benign but clinically their local invasive behaviour has been associated with recurrences. Liposarcomas are thought to arise *de novo* but a few cases of malignant change in lipomas have been described (Oddie *et al.*, 1982).

The CT study was accurate in identifying the lipomatous nature of the neoplasm because of its characteristic low attenuation. The scan also accurately mapped out the site and extent of the tumour in the parapharyngeal space.

Approximately half of all parapharyngeal space tumours are of salivary gland origin. Nerve sheath tumours and paragangliomas constitute about 30 per cent and malignant lymphomas about 20 per cent of the tumours of this region. Sarcomas and other unusual neoplasms, *e.g.* plasmacytomas, comprise the remainder of the tumours in this area (Som *et al.*, 1981).

Because of the large size of the tumour, encroaching upon the base of skull, two surgical approaches were considered. The transcervical approach combined with mandibulotomy and a transparotid approach. However, the latter was preferred because the lesion was found to involve the infratemporal fossa superiorly. The intraoral approach is to be condemned because it neither provides adequate exposure nor control over the major vessels. Optimal exposure is advisable especially with extensive disease to maximize the chances of complete resection.

Key words: Lipoma; Neck

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