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Pleomorphic lipoma of the parotid gland

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Abstract
Lipomata are rare tumours of the parotid gland. The pleomorphic lipoma represents an unusual histological variant of the benign lipoma. We report a case of a pleomorphic lipoma arising in the parotid gland. Only one case of a similar nature has previously been recorded. This tumour is benign, was fully excised and recurrence is not expected.

Key words: Salivary gland neoplasms; Parotid gland; Lipoma, pleomorphic

Introduction

Lipomata are rare tumours of the parotid gland, representing an average of only 1.2 per cent of parotid tumours (Ellis and Auclair, 1996). The pleomorphic variant of benign lipomata is also rare, and usually encountered in the subcutaneous tissue in the neck and shoulder region (Enzinger and Weiss, 1995). Atypical lipomata in the head region are extremely unusual, with four cases of intra-oral spindle cell lipoma having been reported (Chrisopoulis *et al.*, 1989; Lombardi and Odell, 1994; Khoo and Lian, 1995; Tosios *et al.*, 1995) and only one case of pleomorphic lipoma of the parotid gland on the Armed Forces Institute of Pathology file (McDaniel, 1991).

Case report

A 76-year-old man presented with a painless, slowly growing lump in the left cheek. He had had a nodular malignant melanoma removed from the right cheek 10 months previously.

A fine needle aspirate of the left cheek lesion was performed and reported as inadequate for accurate diagnosis.

The clinical suspicion was that of a mixed parotid tumour and a left superficial parotidectomy was performed. At surgery the appearance of the tumour was thought to be reminiscent of an adenoid cystic carcinoma.

Pathological findings

Cytological examination of the smears prepared from the fine needle aspirate showed a preponderance of red blood cells among which were scattered atypical cells with hyperchromatic nuclei and showing cytoplasmic vacuolation.

The resection specimen consisted of 20 g of salivary gland tissue measuring 65 × 40 × 23 mm. Sectioning revealed a circumscribed but not encapsulated gelatinous tumour in the central portion of the specimen measuring 10 mm in maximum diameter. The remainder of the gland appeared macroscopically normal.

Microscopically the tumour was clearly lipomatous in nature but with cellular areas containing atypical lipocytes with spindle-shaped nuclei. Scattered floret cells were seen (Figure 1). Mast cells were noted within the lesion. Vascular channels were present but these did not have a 'chicken-wire' configuration, as is seen in the myxoid variant of liposarcoma. There was no mitotic activity, no necrosis and no lipoblasts were identified. The tumour was fairly well circumscribed and the surrounding parotid gland was unremarkable.

The lesion did not resemble malignant melanoma but, in view of the clinical history, Masson-Fontana staining and immunocytochemistry for S100 and HMB 45 were performed as a precautionary measure. These stains were all negative.

Discussion

Lipomata of the parotid gland are rare tumours, representing an average of only 1.2 per cent of all parotid neoplasms. There is a striking male preponderance of 10:1

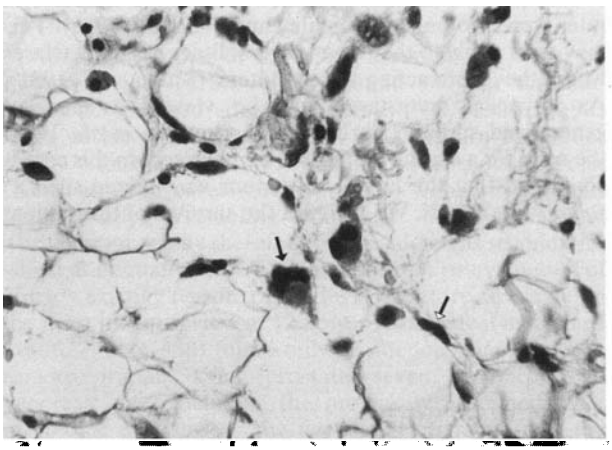

FIG. 1

Photomicrograph of the lesion illustrating its lipomatous nature as well as highlighting the presence of rather hyperchromatic spindle cells (an example marked with an open arrow) and floret cells (an example marked with a solid arrow). These floret cells which have multiple, hyperchromatic nuclei arranged in a 'floret', are characteristic of pleomorphic lipoma. There are no mitotic figures. (H & E; × 250).

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and most patients are over the age of thirty (Ellis and Auclair, 1996). It has been proposed that they are more common on the right side (Janecka *et al.*, 1977) but the largest reported series refutes this suggestion of laterality (Walts and Perzik, 1976).

Of the cases described, all were lipomata of usual type. Occasional cases of lipomatosis of the parotid gland have been recorded; the biggest series of lipomatous lesions includes three cases of lipomatosis and 30 cases of lipoma (Walts and Perzik, 1976). Lipomatous tumours of the parotid gland are not to be confused with fatty replacement of the gland, a not uncommon finding, particularly in elderly subjects (Ellis and Auclair, 1996).

Pleomorphic lipomata are thought to represent a variant of spindle cell lipoma (Enzinger and Weiss, 1995). Both share a predilection for the posterior neck and shoulder region of males older than 45 years. The lesions appear to fit into a spectrum of benign but atypical lipomata. The lipoma described here does indeed show features characteristic of both a spindle cell and pleomorphic lipoma. We have designated it as a pleomorphic lipoma on the grounds that the spindle cell areas are not particularly concentrated and that floret cells are present (McDaniel, 1991).

Four cases of spindle cell lipoma occurring in the oral cavity have been described (Chrisopoulis *et al.*, 1989; Lombardi and Odell, 1994; Khoo and Lian, 1995; Tosios *et al.*, 1995). A hibernoma arising in the parotid region has also been reported (Vinayak and Reddy, 1993) although there has been some dispute about whether this lesion originated in the subcutaneous tissue overlying the parotid or within the gland itself (Ellis and Auclair, 1996). We could find no published reports of spindle cell or pleomorphic lipoma arising in salivary glands.

The patient remains well and recurrence of this tumour is not expected.

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