A Pleomorphic Liposarcoma Imitated a Subcutaneous Cyst

Sir,

We report on a 42-year-old Caucasian man presenting a 5×5 cm well demarced, subcutaneous, soft tumour on the left upper arm (Fig. 1) that had progressed over a period of two months. The skin above the lesion was distinctly inflamed, the lesion, however, was painless. There was no clinical history of a trauma. As the tumour clinically resembled an infected cyst, an incision had been performed. Even though a great amount of pulpy yellow-brown material was found, a cyst could not be traced intrasurgically.

Histologically, the tumour mass differed greatly in size and shape and consisted of scattered, bizarre, multivacuolated lipoblasts intermingled with smaller pleomorphic cells. Numerous atypical mitosis, hyperchromatic tumour cells and giant cells were often seen (Fig. 2). By immunohistochemistry using the APAAP-method (1) a positive immunostaining for S-100 and for Vimentin was observed. Lack of immunoreactivity for HMB-45 (Melanoma marker), desmin, pan-zytokeratin and lymphocytic common antigen (all antibodies purchased from Dako, Germany) excluded other tumour types and confirmed the diagnosis of a pleomorphic liposarcoma.

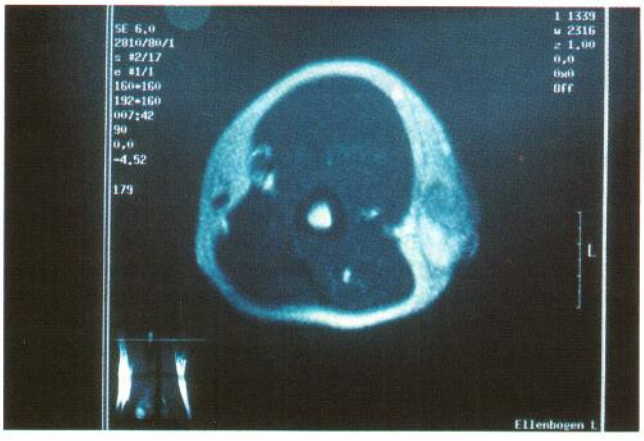

Fig. 1. Nuclear magnet resonance showing the well circumscribed tumour on the left upper arm.

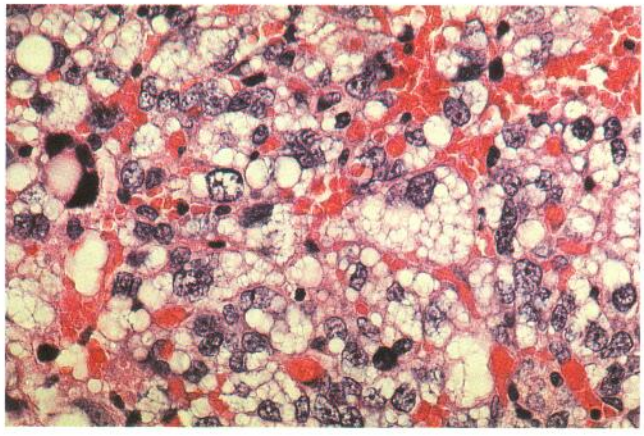

Fig. 2. Bizarre, hyperchromatic and atypical lipoblasts (HE; ×400).

Once malignancy of the tumour was confirmed, total excision was performed. An amputation was refrained, as it does not seem to confer additional benefit for the patient (2, 3). The patient is free of local distant metastasis until now.

Accumulating data from previously published reports, only 5% of all liposarcomas occur in men at the arm (4). Liposarcomas can be classified histopathologically into five groups consisting of the well-differentiated, myxoid, round cell, dedifferentiated and pleomorphic type (5, 6). Among these the most poorly differentiated types have the worst prognoses because they metastasize rapidly and frequently to the lung, other visceral organs and bone (5). In addition to the cell type tumour necrosis and increasing tumour size are also associated with poor prognosis (7). About 50% of the patients with pleomorphic liposarcoma of the extremity show distant metastasis within 5 years after the initial operation. The 5-year survival rate in the pleomophic subtype is reported to be lower than 60% (8). Postoperative radiotherapy has been reported to be beneficial for survival rate (9), but reviewing the literature we decided that no significant advantage was to be gained (9).

The pleomorphic liposarcoma is a rare tumour type. Because haemorrhage and necrosis are often seen, it can clinically imitate a cystic process as it did in this case. Therefore, we conclude that in the future it must be included as an important differential diagnosis of subcutaneous cystic tumours with rapid progression.

REFERENCES

1. Cordell JL, Falini B, Erber WN, Ghosh AK, Abdulaziz Z, Macdonald S, et al. Immunencymatic labeling of monoclonal antibodies using immune complexes of alkaline phosphatase anti-alkaline phosphatase (APAAP). J Histochem Cytochem 1984; 32: 219–229.
2. Chang HR, Gaynor J, Tan C, Tanaka K, Wong TY, Rao VK, et al. Multifactorial analysis of survival in primary extremity liposarcoma. World J Surg 1990; 14: 610.
3. Ritchie AC. Boyd's Textbook of Pathology, 9th edn. Vol II, Philadelphia/ London: Lea & Febiger, 1990; 1962–1964.
4. Enzinger FM, Weiss SW. Soft tissue tumors, 3rd edn. St. Louis C.V., Mosby Co., 1995; 431–466.
5. Reitan JB, Kaalhus IO, Brennhovd JO, Sumner HW, Castro EB, Cinti S, et al. Prognostic factors in liposarcoma. Cancer 1985; 55: 248–2490.
6. Gustafson P. Soft tissue sarcoma. Epidemiology and prognosis in 508 patients. Orthop Scand Suppl. 1994; 259: 1–31.
7. Chang HR, Hajdu SI, Collin C, Brennan MF. The prognostic value of histoplogic subtypes in primary extremity liposarcoma. Cancer 1989; 64: 1514–1520.
8. Basso Ricci S, Milani F, Gramalia A, Basso Ricci P, Borsa G. On extravisceral soft tissue sarcomas. Effectiveness of radiation treatment and problems of radiotherapy and radiosurgical treatment. Pinmerva Med 1992; 34: 69–76.
9. Celik C, Karakousis CP, Moore R, Holyoke ED. Liposarcomas: prognosis and management. J Surg Oncol 1980; 54: 245–249.

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