

Epithelioid haemangioendothelioma of soft tissue after pellet injury

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Abstract

An epithelioid haemangioendothelioma developed at the site of injury sustained from an air gun pellet 20 years previously in an otherwise healthy 30 year old man, suggesting a possible traumatic aetiology in this case.

Epithelioid haemangioendothelioma is a vascular tumour which behaves somewhere between haemangioma and angiosarcoma.¹ The tumour was first described in the lung, but has subsequently been described in several organs and soft tissue. No definite aetiological associations have been ascribed to this tumour so far, except an association with oral contraceptives in epithelioid haemangioendothelioma of the liver.^{2,3}

Case report

A 30 year old Libyan man presented with a small painful swelling in the superficial soft

tissue of the abdomen. He was in excellent physical health. All routine investigations were within normal limits. The swelling was mobile and painful. Trauma had been sustained at that site from an air gun pellet when he was 8 years old.

The swelling was regarded as a foreign body granuloma clinically and was excised. Gross examination of the specimen showed a reddish brown, slightly firm mass measuring 1.0 × 0.7 × 0.5 cm. The sections taken were routinely processed and slides were stained with haematoxylin and eosin, Gordon and Sweet's stain for reticulin fibres, Best's mucicarmine stain for mucin, and van Gieson's stain for elastic fibres.

A soft tissue tumour in solid nests and small clusters of round to polygonal epithelioid cells with very little stroma was seen (fig 1). Some of the tumour cells formed small clear spaces of vacuoles in the cytoplasm suggesting intracellular lumina (fig 2). These vacuoles were negative for mucin. A focal inflammatory infiltrate was seen at the periphery of the

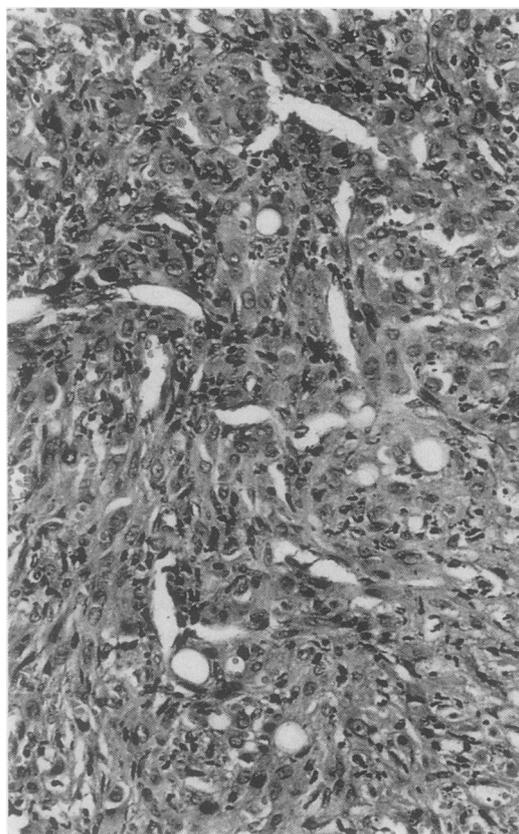


Figure 1 Low power view of tumour mass with solid nests of cells and scanty stroma (haematoxylin and eosin).

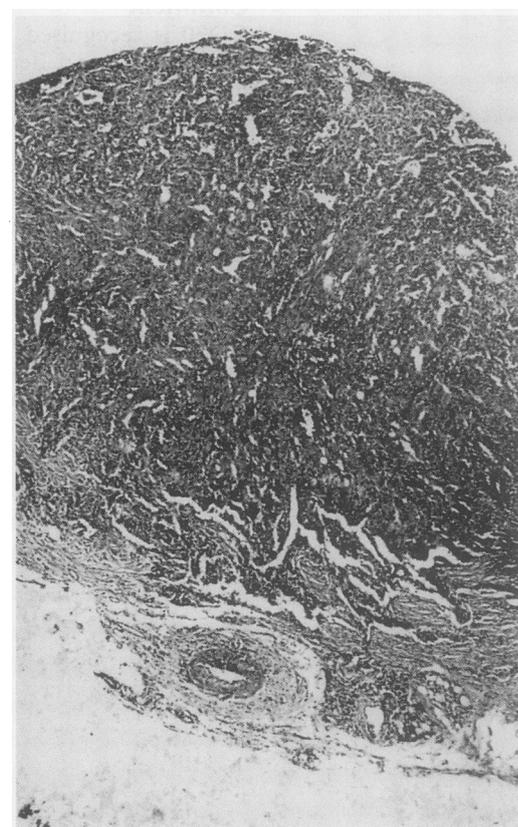


Figure 2 High power view showing round to polygonal tumour cells with intracytoplasmic vacuoles (lumina) in some of them (haematoxylin and eosin).

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tumour. Mitoses were absent. Based on these histological findings the tumour was considered to be an epithelioid haemangio-endothelioma. Electron microscopic examination for Weibel-Pelade bodies or immunohistochemistry for factor VIII antigen could not be done because of a lack of facilities for both these procedures.

Discussion

Epithelioid haemangioendothelioma of the soft tissues in adults often arises from the wall of a vein in an extremity.¹ In this case the tumour was located in the superficial soft tissues, although it had originated from a vessel wall.

To date no definite aetiological factors have been described for epithelioid haemangio-endothelioma. The history of trauma at the site

of the tumour is interesting because the pellet might have damaged a small blood vessel at that site and a tumour developed slowly later.

It is difficult to predict the biological behaviour of this tumour on the basis of histological features alone.⁴ At the time of writing the patient had been followed up for three years without any recurrence.

- 1 Weiss SW, Enzinger FM. Epithelioid haemangioendothelioma. A vascular tumour often mistaken for a carcinoma. *Cancer* 1982;50:971-81.
- 2 Dean PJ, Haggitt RC, O'Hara CJ. Malignant epithelioid haemangioendothelioma of the liver in young women. Relationship to oral contraceptive uses. *Am J Surg Pathol* 1985;9:695-704.
- 3 Enzinger FM, Weiss SW. *Soft tissue tumors*. 2nd ed. St Louis: CV Mosby company. 1988:533-7.
- 4 Akosa AB, Ali MH. Epithelioid haemangioendothelioma of terminal ileum after therapeutic irradiation. *J Clin Pathol* 1989;42:889-90.