Case report

Olecranon nodules in a case of Behçet's disease

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SUMMARY A 33-year-old male with definite Behçet's disease had rheumatoid-like nodules at his elbows. This finding, we believe, represents another manifestation of vasculitis in Behçet's disease.

The subcutaneous nodule, in its varying forms, is an important clinical finding in the rheumatic diseases.¹ Such nodules are not usually found in Behçet's disease.² In fact their absence has been used by some authors as evidence to classify Behçet's disease with the seronegative spondarthritides.^{3 4} We have recently encountered a patient with definite Behçet's disease who had such nodules.

Case report

A 33-year-old Caucasian male was admitted to hospital with a 2-year history of recurrent swelling and pain in both ankles and knees. More recently, along with erythema-nodosum-like lesions on the legs, he developed pain and swelling of his right hand. In addition he had had skin pustules for 2 years, recurrent aphthous stomatitis for a year, genital ulceration for 5 months, and a history of thrombophlebitis in his left calf 20 months previously. Subsequent to this attack of thrombophlebitis he developed intermittent claudication in his left leg. Three months before admission he was found to have absent tibialis posterior and dorsalis pedis pulses at another hospital, and a lumbar sympathectomy was performed, with relief of claudication.

Physical examination revealed aphthous stomatitis, scrotal ulceration, erythema-nodosum-like lesions on the left leg, pustules on both legs, a tender and swollen proximal interphalangeal joint of the second finger of the right hand, bilateral synovitis of the knees, and flexion contracture of the left elbow. Olecranon bursae were present and contained

nodular tissue. In addition there were 2 other subcutaneous olecranon nodules on the left side. Dorsalis pedis pulses were present, but that on the left was weaker. Slit-lamp examination of the eyes was normal.

Fig. 1 Macroscopic appearance of the nodules (scale in centimetres).

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INVESTIGATIONS

Haemoglobin 12.5 g/dl, haematocrit 38%, leucocytes $8.8 \times 10^9/l$ with a normal differential count, ESR 35 mm/h (Westergren), latex rheumatoid factor and antinuclear antibody negative. C-reactive protein positive, serum uric acid 3.4 mg/100 ml (0.2 mmol/l). Radiographs of the chest and pelvis were normal. Hand and knee radiographs showed only soft tissue swelling. He had nonspecific skin hyper-reactivity to pinprick (a positive 'pathergy' test),⁵ and his tissue typing was A1, A3, B5, CW3, CW4. A percutaneous arteriogram of the left

femoral artery revealed partial occlusion of the anterior tibial artery.

The nodules distal to the left olecranon bursa were removed (Fig. 1). Histology showed many inflammatory cells composed of polymorphs and lymphocytes. Polymorphs predominated in the superficial areas, whereas the lymphocytes were more prominent at the deep zones. There was a granulation tissue rich in fibrin with inflammatory cells around the vessels (Fig. 2). With special fibrin stain⁶ abundant fibrin was seen, especially at the surface of the nodule (Fig. 3). In some areas it assumed a homogeneous character—fibrinoid (Fig. 4).

Fig. 2 Section of nodule (haematoxylin and eosin, $\times 80$).

Fig. 3 Fibrin strands at surface of nodule. (Fibrin stain, $\times 80$).

Fig. 4 Fibrinoid-containing area (Fibrin stain, $\times 500$).

Discussion

Our patient fulfilled all sets of criteria proposed for Behçet's disease by various authors.⁷⁻¹⁰ Furthermore he was pathergy positive and HLA B5 positive, this further strengthening the diagnosis.²

Chamberlain reported 2 patients with Behçet's disease who had subcutaneous nodules.¹¹ However, 1 of these patients had concomitant seropositive rheumatoid arthritis and the other had 'possible' Behçet's disease. In neither patient was histology of the nodules reported.

The histology of the subcutaneous nodules clearly differed from that of the classical rheumatoid nodule with its distinct zones and palisading.¹ It resembled rather that of the nodules seen in rheumatic fever in that it was not 'well structured'¹² and it contained abundant fibrin and fibrinoid.¹ However, it differed from the rheumatic fever nodule by its vascularity and cellularity.¹

The subcutaneous nodules in rheumatoid arthritis and rheumatic fever are thought to be associated with vasculitis.^{13,14} Although histological evidence was not available, the peripheral arterial occlusion in our patient may have been due to large vessel arteritis, as has been previously described in Behçet's disease.¹⁰

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