Postoperative recovery was uneventful and at follow up three months after surgery the patient was completely symptom free. Histology confirmed the diagnosis of cystic adventitial disease of the popliteal artery.

Discussion

Intermittent claudication as a presenting symptom in children is exceedingly rare. If there is no history of trauma or obvious cause for arterial embolism, the differential diagnosis lies between the popliteal artery entrapment syndrome (due to an anomalous origin of the medial head of gastrocnemius) and cystic adventitial disease. In both of these conditions, the history of claudication is usually progressive.

The physical findings vary, the peripheral pulses being normal, diminished or absent in either condition. A bruit over the popliteal artery has been reported often in cystic adventitial disease but only once in the popliteal entrapment syndrome (Mentha 1966).

The two conditions can sometimes be distinguished by noting changes in the ankle pulses in response to movement of the knee. In popliteal entrapment the ankle pulses may disappear when the gastrocnemius muscle is put on stretch by passive dorsiflexion or active plantar flexion of the ankle with the knee straight, whereas flexion of the knee will produce arterial impairment in cystic adventitial disease.

To reach a more definitive diagnosis, arteriography is necessary. In the early stages of cystic adventitial disease, there is a smooth hour-glass stenosis ('Scimitar' sign) with no poststenotic dilatation. Later when the popliteal artery is occluded, the arteriogram shows a smooth tapering off at the upper end of the block (*British Medical Journal* 1970). The arteriogram in the popliteal entrapment syndrome commonly shows some deviation of the artery medially with an area of narrowing and the lesion may be bilateral. Despite arteriography, in many cases the final diagnosis is only made at operation.

Surgical treatment should in the first instance be limited to evacuation of the cyst contents or, better still, careful dissection to remove the cyst in its entirety from the vessel wall. If the artery is occluded, resection of the affected segment and a vein graft replacement or arteriotomy with vein patching will be necessary (*British Medical Journal* 1970).

Acknowledgment: We thank Dr D MacCauley for referring this case.

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Pyoderma gangrenosum, seronegative polyarthropathy and inflammatory bowel disease[1]

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The association of pyoderma gangrenosum with the milder and even asymptomatic forms of inflammatory bowel disease is becoming more widely accepted. However, the association between pyoderma gangrenosum and polyarthritis is at present unclear. A case in which pyoderma gangrenosum occurs with both inflammatory bowel disease and polyarthritis is described and the implications are discussed.

[1] Case presented to Clinical Section, 11 November 1977. Accepted 8 February 1978

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Case report

A 70-year-old housewife had been attending the Rheumatology Department of an East London hospital since 1962 with a mild seronegative polyarthropathy involving mainly her wrists but also neck, knees and ankles. She had also been investigated in 1971–1973 for episodes of rectal bleeding and weight loss and on one occasion had undergone laparotomy following a suspicious finding on barium enema. This was however normal. The presumptive diagnosis was that of diverticular disease.

In January 1977 she presented with an acute flare-up of the arthritis in both wrists (Figure 1) following the completion of a course of radiotherapy for squamous carcinoma of the palate. Latex test at the time was again negative and X-rays showed erosive destruction of both wrists. She was treated with nonsteroidal anti-inflammatory drugs, but subsequently developed numerous small bullous-like lesions on her face, hands, thighs and feet. These progressed to ulceration until on admission to hospital she had two large (15 cm × 8 cm) sloughing ulcers on her left thigh (each with raised edges and bluish halo) (Figure 2) and smaller ulcers on her face, hands and feet. This was accompanied by pyrexia, malaise and weight loss.

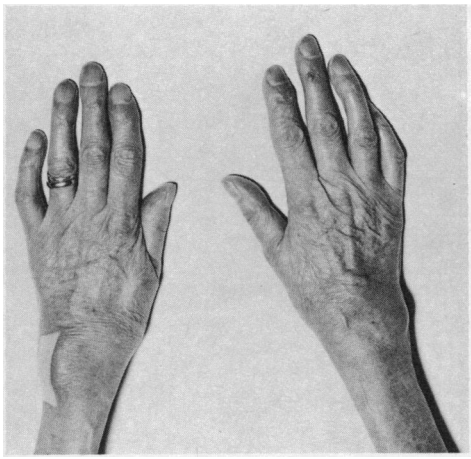

Figure 1. Both wrists swollen

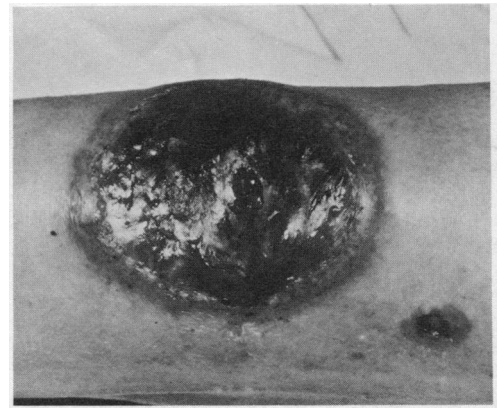

Figure 2. Pyoderma gangrenosum from left thigh

Investigations showed Hb 9.9 g/dl; white count 10.7×10^9/l (84% neutrophils); ESR 90 mm/hour; latex test negative; autoantibodies negative. Rectal biopsy: there were inflammatory changes consistent with ulcerative colitis. Barium enema: there were no gross changes of ulcerative colitis.

A clinical diagnosis of pyoderma gangrenosum was made and she was started on prednisolone 60 mg daily and sulphasalazine (Salazopyrine) 1 g three times daily, with rapid symptomatic relief and gradual resolution and healing of the ulcers over the next 12 weeks. She has subsequently undergone left cervical lymph node dissection and radiotherapy for recurrent carcinoma but is otherwise well, with no bowel symptoms nor recurrent ulceration.

Discussion

The association between pyoderma gangrenosum and ulcerative colitis is well established. The earlier studies (Rice-Oxley & Truelove 1950, Watts *et al.* 1966) maintained that pyoderma gangrenosum was mainly associated with severe long-standing or fulminating disease, but more recently it has been accepted that the lesions can appear in the presence of mild or inactive disease (Johnson & Wilson 1969, Perry 1969). The relationship between pyoderma gangrenosum and arthritis is much less well described. There is no firm evidence for an association between pyoderma gangrenosum and rheumatoid arthritis, with only nine anecdotal reports up to 1975 (Stolman *et al.* 1975). Strong connections have, however, been shown between the

seronegative polyarthritis of ulcerative colitis and its associated skin lesions – erythema nodosum with pyoderma gangrenosum (Wright & Watkinson 1965). However, the series of Kinner *et al.* (1957) separate the two skin lesions and show the association to be with erythema nodosum only. More recently a case has been made for a specific seronegative polyarthritis occurring in connection with pyoderma gangrenosum (Holt *et al.* 1977).

The occurrence of mild ulcerative colitis in erosive seronegative polyarthritis and pyoderma gangrenosum in the same patient is an interesting finding and has important implications for pathogenesis.

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