

rhabdomyolysis, without cellular inflammatory infiltrate, favors a biophysical mechanism.

Radiation myo-fasciitis is probably a rare disease and only a few cases have been reported in the literature (4). An increased level of radio-sensitivity due to genetic factors could be responsible for such a severe reaction. Knowledge of the clinical, histologic and morphologic characteristics of radiation myo-fasciitis is helpful in order to distinguish it from an infectious fasciitis or myositis.

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## Superficial Granulomatous Pyoderma of the Scrotum: an Extremely Rare Cause of Genital Ulcer

Sir,

Superficial granulomatous pyoderma is the vegetative variant of pyoderma gangrenosum. It has a relatively benign course with simple treatment modalities. We report here a young male patient with scrotal involvement, which has been reported to be rare. Lesions healed in 3 weeks with the use of oral prednisolone therapy.

#### CASE REPORT

An 18-year-old male student, who had multiple homosexual partners, was referred to our hospital with the suspicion of a sexually transmitted disease in September 1999. Red–purple lesions had appeared on the scrotal skin 1 week after an upper respiratory tract infection, and then ulcerated in a few days. Tetracycline, 2 g/day for 2 weeks, had been recently prescribed by a general practitioner but did not provide any improvement.

Physical examination revealed some blue–violet nodules and multiple, painful superficial ulcers with vegetative borders on the oedematous scrotal skin (Fig. 1).

The pathology test was negative. Urinalysis, erythrocyte sedimentation rate, liver function tests, renal function tests and electrolytes were normal. Leukocyte count was 18,200 10<sup>9</sup>/l with a shift to the left. CRP level was 24 mg/dl (normal range: 0–6 mg/dl). The anaerobic and aerobic swab cultures of the ulcers did not show any pathogenic micro-organism. Dark ground examination did not show any spirochaetes. Venereal diseases reference laboratory (VDRL), rapid plasma reagin (RPR), *Treponema pallidum* haemagglutination antibody (TPHA) tests for syphilis, enzyme-linked immunosorbent assay (ELISA) test for human immunodeficiency virus (HIV) and herpes simplex type 2 (HSV-2) IgM titre were negative.

A punch biopsy was taken from the edge of the ulcer. Histological examination revealed ulceration in the epidermis and dense, mixed inflammatory cell infiltration with some granulomatous foci in the dermis.

Clobetasol-17-propionate cream was applied for 3 weeks but the lesions did not improve. Oral prednisolone 20 mg/day (0.25 mg/kg)

was started and all the ulcers were healed with an acceptable cosmetic scar in 3 weeks.

#### DISCUSSION

Pyoderma gangrenosum (PG) is an unusual ulcerative disease, mostly affecting the lower limbs (1). The pathogenesis is unclear, but it is believed that it is related to the defensive immune response (2). Four clinical variants of the disease have been described; ulcerative, pustular, bullous and vegetative (3). Superficial granulomatous pyoderma (SGP) is the chronic, slowly enlarging and vegetative variant of PG (3, 4).

Scrotal PG is extremely rare. Only 6 cases have been reported in the English language literature (1, 5–8, 11). Infants with pyoderma gangrenosum may have ulcers on



Fig. 1. Some small purple nodules and superficial ulcers with vegetative borders are to be seen on the scrotum.

genital and perineal areas (9). In addition, purely penile pyoderma gangrenosum has been described (10, 12–14).

SGP is usually seen in adults, with a predilection for the trunk (3,15). To the best of our knowledge, this patient is the first reported case of SGP located on the scrotum. Behçet's syndrome and fixed drug eruption must be considered in the differential diagnosis. However, there was no history of the use of any drug in our patient. In addition, the major criteria of Behçet's disease were absent and the pathergy test was negative.

Oral prednisone with 40 to 120 mg/day has been recommended for treatment of PG except SGP variant (3, 16). SGP has an indolent course, with less toxic treatment modalities (1, 3, 4, 15). Local corticosteroid, oral tetracycline, minocycline and sulpha drugs have been used successfully for SGP (3, 15).

Oral tetracycline 2 g/day and clobetasol-17-propionate cream gave no beneficial effect in this case. Systemic corticosteroid therapy is not generally recommended for the treatment of SGP but prednisolone 20 mg/day provided rapid healing with an acceptable cosmetic scar in 3 weeks.

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## Successful Treatment of Ulcerated Necrobiosis Lipoidica with Mycophenolate Mofetil

*Sir,*

Necrobiosis lipoidica is a granulomatous inflammatory disease of the skin usually associated with diabetes mellitus. About a third of patients suffering from necrobiosis lipoidica show painful ulcerations of the involved skin which are usually resistant to therapy. We describe here a case of necrobiosis lipoidica where the ulcerations healed after treatment with mycophenolate mofetil (MMF).

#### CASE REPORT

A non-diabetic 61-year-old woman with a 30-year history of necrobiosis lipoidica presented with ulcerations of both lower legs that had existed for 18 months. Sharp-bordered, yellow–brown to red painful plaques were observed with ulcerations, atrophy and sclerosis of the centre and elevation of the margin.

A biopsy specimen of the lesional skin confirmed the diagnosis and showed collagen degeneration with a concomitant palisading granulomatous infiltration (composed of giant cells, epithelioid cells and histiocytes) in the lower dermis. This granulomatous infiltration was surrounded by a distinct, perivascular inflammatory cell infiltrate

featuring plasma cells. We also observed leukocytoclastic vasculitis with obliterated vessels and septal panniculitis.

The ulcerated lesions had failed to respond to a number of previous long-term treatment regimens with topical (under occlusion) and oral (60–80 mg per day) corticosteroids, pentoxifylline, dapsone and topical antiseptic substances combined with prolonged compression. The patient also received heparin. Nevertheless, the ulcerations persisted continuously for >18 months and hardly any improvement was noticed (Fig. 1A).

As plasma cells were the most numerous cells in the lesional skin and may therefore play a crucial role in the pathogenesis of necrobiosis lipoidica, we decided to start treatment with lymphocyte-inhibiting MMF (1) at 1 g per day orally divided into 2 doses of 0.5 g. The extensive ulcerations of both lower legs completely regressed within 4 weeks after this therapy was begun (Fig. 1B). The daily dose was subsequently reduced to 0.5 g. After 4 months of treatment the patient was still free of ulcerations. Complete elimination of MMF by the patient resulted in the recurrence of ulcerations within 14 days. The patient refused further therapy with this drug, because she feared the side effects of MMF, although she did not complain of any side effects and we could not observe any during the entire duration of therapy.