

SHORT REPORTS

Bullous Pyoderma Gangrenosum in Association with Myeloid Leukaemia

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Abstract. The case is presented of a patient with busulfan (Myleran®) treated myeloid leukaemia, who developed bullous pyoderma gangrenosum. Skin symptoms appeared at the time when treatment was discontinued due to signs of bone marrow depression. The pyoderma disappeared following treatment with systemic steroid.

Key words: Bullous pyoderma gangrenosum; Leukaemia

Pyoderma gangrenosum is known to be a rare cutaneous disease of unknown aetiology. In about half of all cases it is associated with colitis ulcerosa. In recent years pyoderma gangrenosum has also been reported in association with paraproteinaemia (2, 9), immunosuppression (6), rheumatoid arthritis (7), altered cellular immunity (4) and acute myeloid leukemia (1, 8). When found in conjunction with myeloid leukaemia the lesions seem to be more superficial (1, 3, 8).

In this paper another case of the rare bullous variant of pyoderma gangrenosum associated with myeloid leukaemia is reported.

CASE REPORT

The patient, a 36-year-old man, previously in good health, developed myeloid leukaemia early in 1974 and was treated at the Department of Internal Medicine with busulfan (Myleran®; Burroughs Wellcome Co.). Treatment was discontinued in January 1975 because of bone marrow depression. In April 1975 the patient developed a pustular lesion on the left side of the trunk. He was treated with ampicillin without effect. Because of the lesion's continued growth and the appearance of a number of blisters, the patient was referred to the dermatological department.

When we saw the patient he had a reddish brown, well defined tumour, 15×15 cm large with a cyanotic bullous edge (Fig. 1). No history of diarrhoea or bloody stools could be elicited. A skin biopsy showed signs of acute and chronic inflammation with numerous polymorphonuclear leukocytes in both the upper dermis and epidermis, together with oedema and hemorrhage.

Clinically, the affection resembled the bullous variant of pyoderma gangrenosum as described by Perry & Winkelmann (8). The patient was treated with betamethasone 1 mg×3 daily. In addition, he received blood transfusions owing to falling hemoglobin and platelet counts. The leukocyte count was also low. After 10 days of treatment the lesions had healed and betamethasone was reduced to 2.5 mg daily. However, a week later the leukaemia had progressed rapidly and the patient died.

Laboratory investigations

Erythrocyte sedimentation rate: 104 mm/1 hour, hemoglobin 8.6-9.5 mg/100 ml, erythrocyte count 2.88 mill/ μ l, leukocyte count 880-2600/ μ l, platelets 4000/ μ l. Mantoux negative. Wassermann reaction negative. Antistreptolysin titre normal. Urine analyses and blood sugar normal. A culture from the ulcer showed growth of *Staphylococcus albus*. Cultures investigated for actinomyces, tubercula bacillae and fungi all proved negative. A previous bone marrow specimen had shown hypercellularity with the outstanding cell type being an immature monocyte. Autopsy showed no signs of colitis ulcerosa, but revealed leukaemic infiltration of multiple organs.

DISCUSSION

The diagnosis pyoderma gangrenosum is still based solely on the history and the clinical pattern together with negative laboratory findings. When no associated bowel disease is found the diagnosis is often difficult. Although virus has been implicated as being responsible for the pyoderma gangrenosum (5), the cause of the disease is still unknown.

It is only recently that we have become cognizant of an association with leukaemia. The present report differs somewhat from the paper of Perry & Winkelmann (8). Our patient had leukaemia one year before pyoderma gangrenosum developed. In the biopsy we found signs of vasculitis, which is not common. Similar findings have been reported by Thompson et al. (9), whose patient had leuko-

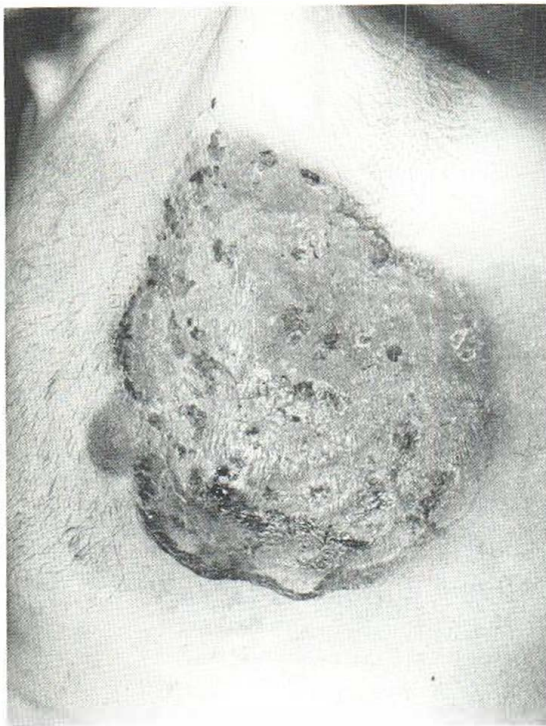


Fig. 1. Lesion on left side of the trunk. Note the bullous edge.

cytotoxic vasculitis, pyoderma gangrenosum, chronic pyelonephritis and a paraproteinaemia. Immunosuppressive drugs often clear the lesions of pyoderma gangrenosum. This was also the case in our patient. We have no indication of any relationship between his early death and this treatment. Although not all cases of bullous pyoderma gangrenosum (3) appear related to leukaemia, patients with this disease should be investigated with this relationship in mind. The report of Perry & Winkelmann (8), together with the present report, indicate that pyoderma gangrenosum may well signify a poor prognosis when associated with leukaemia.

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Wound Dressing with Collagen Film in Skin Planing

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A variety of dressings have been used following skin planing. None has proved ideal, however. Ointment compresses containing antibiotics have been popular, but are not advisable because of the risk of sensitization. They may also lead to the development of local resistant strains of bacteria. Compresses are difficult to apply and simple bandages are adherent and hard to remove. In most cases heavy crusts form.

The present report describes the use of a newly developed collagen film in skin planing.

MATERIAL AND METHODS

Seven patients suffering from four different skin diseases were subjected to skin planing. The diagnoses were post-acne scars, rhinoplyma, scarring following neurotic excoriations, and Darier's disease. With the exception of the last patient who had skin planing done to lesions on her arms, all dermabrasion was performed on facial skin. Der-