

On the Efficacy of Dapsone in Granuloma Faciale

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Granuloma faciale is a relatively rare skin disorder with a chronic course. In many cases treatment of granuloma faciale is difficult. In the present report the beneficial effect of dapsone in this condition is described. Key words: Inflammation; Eosinophils.

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Granuloma faciale is a relatively rare condition, which was first reported in 1945 by Wigley (1). The condition is characterized by soft, erythematous nodules or plaques, which are localized predominantly on the face. The histopathological picture is characterized by a mixed inflammatory infiltrate, not penetrating into the epidermis or skin appendages, leaving a zone free from infiltrate cells.

Polymorphonuclear leucocytes, eosinophils, lymphocytes, histiocytes, monocytes and mast cells constitute the inflammatory infiltrate. Microvessels are dilated and perivascular haemorrhage with hemosiderin deposition is observed, often adopting the picture of leukocytoclastic vasculitis with fibrinoid degeneration within and around the microvessels (2, 3).

The lesions tend to be chronic. Various therapeutical approaches have been reported to be of some but limited value: intralesional injection of corticosteroids, oral antimalarial therapy, cryotherapy and excision. To the best of our knowledge only one case report is available on the efficacy of dapsone in granuloma faciale (4).

The aim of the present case report was to describe the clinical response to repeated courses of dapsone therapy in a patient with granuloma faciale.

CASE REPORT

A 50-year-old man presented with a 1-year history of a nodule on the face. Localized on the root of the nose, a sharply circumscribed nodule was seen with a diameter of approximately 4 cm. This red-brown nodule was asymptomatic with telangiectasis and some scaling. Fig. 1 illustrates the clinical appearance.

Histological investigation of a biopsy taken from the nodule revealed an extensive inflammatory infiltrate, extending into the deeper layers of the dermis, leaving a zone beneath the epidermis free from infiltrate cells. The infiltrate consisted of polymorphonuclear cells and eosinophils and some mononuclear cells with plasma cells.

In the dermis pigment accumulations were observed, which proved to be negative in Perls' staining and positive in Fontana staining, indicating that the pigment represents melanin. Apart from some fibrinoid degeneration around the capillaries and nuclear dust, no signs of vasculitis were noticed.

Additional laboratory investigations, including lues serology and x-rays of the nose, did not reveal any abnormality.

Based on the clinical and histological picture, the nodule was diagnosed as granuloma faciale.

Treatment with dapsone (200 mg a day) was started in October 1990 and discontinued in February 1991. A considerable improvement was reached during this period. In October 1991 dapsone treatment was reinstated, resulting in an impressive improvement.

DISCUSSION

The red-brown sharply circumscribed nodule and the typical inflammatory infiltrate with the free subepidermal zone are compatible with the diagnosis granuloma faciale. In several reports, the extravasation of erythrocytes is a common feature. However, the histopathological appearance in the present case is characterized by a dense inflammatory infiltrate with minimal vascular changes, apart from some fibrinoid degeneration and some nuclear dust formation.

Various therapies have been advocated for the treatment of granuloma faciale: surgical excision, intralesional injections of triamcinolone acetonide (10 µg/ml), dermabrasion, cryotherapy,

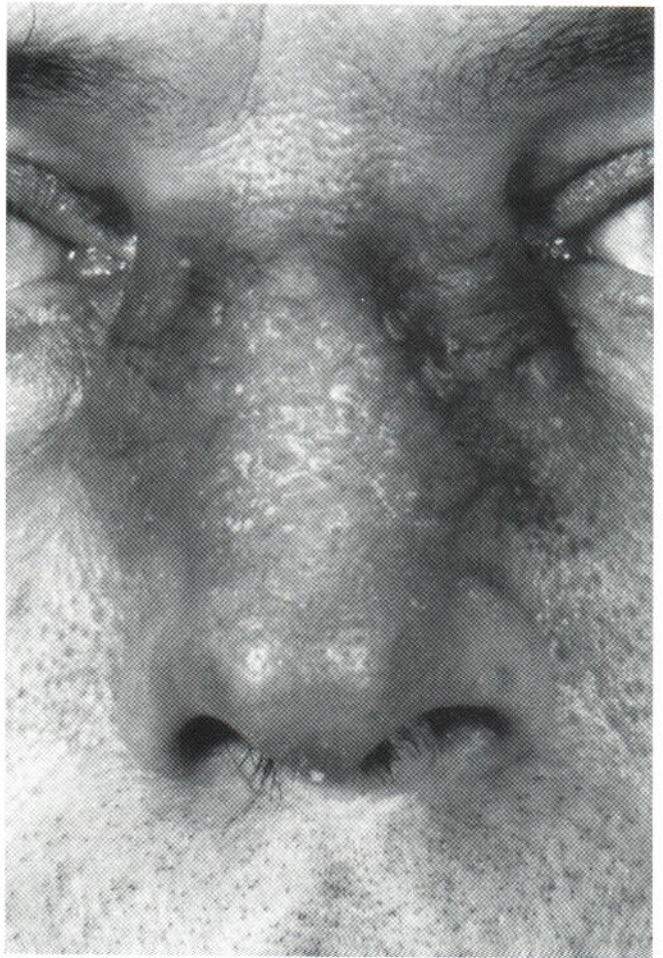


Fig. 1. A solitary red-brown nodule, with telangiectasis and scaling.

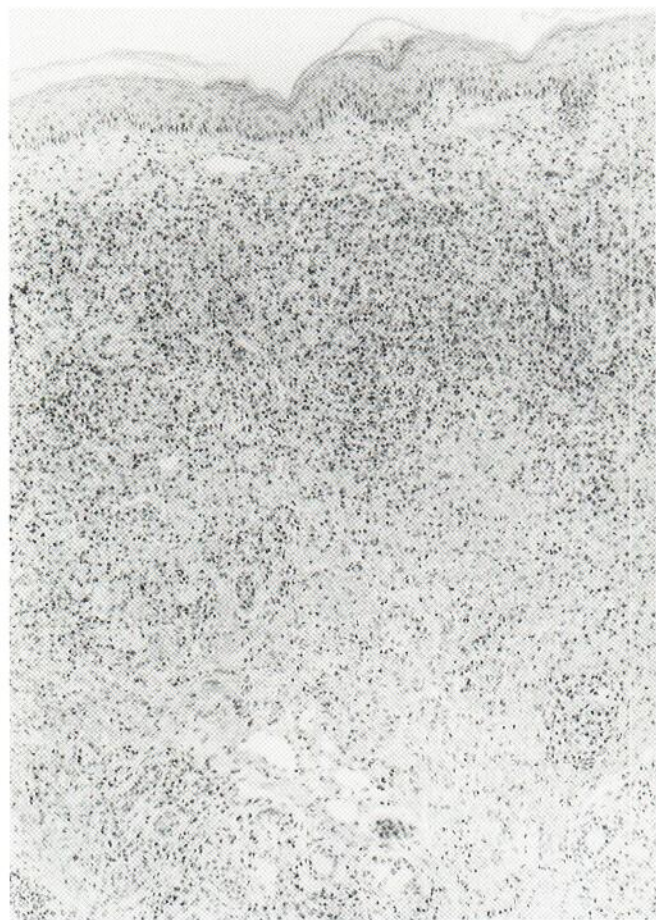


Fig. 2. Histological appearance showing accumulation of infiltrate cells, in particular polymorphonuclear leucocytes and eosinophils. A zone free from infiltrate cells beneath the epidermis can be seen. Within the dermis, pigment accumulations are present.

x-ray, electrodesiccation, gold injection, antimalarial drugs (3, 5–8). Only one case report suggests the therapeutical efficacy of dapsone in the treatment of granuloma faciale (4). Spontaneous recovery, however, has been reported, although the lesions in general tend to be chronic (2). The present case report confirms the efficacy of dapsone in another case of granuloma faciale. Dapsone has been reported to be effective in various disorders characterized by infiltration of the polymorphonuclear leucocyte and/or eosinophils, such as Dühring's disease, eosinophilic pustular folliculitis and nodular eosinophilic infiltration of the skin (9–11).

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