Cyclosporin Therapy in Pyoderma Gangrenosum in a Patient with Behcet's Disease

BEHÇET HASTALIĞI OLAN BİR HASTADA PİYODERMA GANGRENOZUM'UN SİKLOSPORİN İLE TEDAVİSİ

Ferda ARTÜZ*, Nuran ALLI*, Nurdan LENK*, Güliz KARAKAYALI*, Emel GÜNGÖR*

*Dr.,Ankara Numune Hospital, Dermatology Clinic, Ankara, TURKEY

Summary

Behcet's disease is a chronic multisystem disorder characterized by a relapsing inflammatory process of unknown etiology. Tlte basic pathological lesion in Behcet s disease is a vasculitis of tlte small vessels. Pyoderma gangrenosum which has also been suggested as a form of cutaneous vasculitis has a rare association with Behcet's disease. We report here a patient who had both pyoderma gangrenosum and Behcet's disease, therapy, cyclosporine.

Key Words: Pyoderma gangrenosum, Behcet's disease, Therapy, Cyclosporine

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Özet

Behçet hastalığı eıyolofisi bilinmeyen tekrarluvıcı iıı/laıatıar reaksiyonlarla karakterize kronik bir ıuıltisisrem hastalığıdır. Behçet hastalığındaki esas patolojik lezyon küçük damarların vuskülitidir. Kiitanöz vaskülitin bir formu olarak kabul edilen pyoderma gangrenoznm Behçet hastalığı ile seyrek olarak birliktelik gösterir. Biz burada, siklosporiıı tedavisi ile başarılı sonuç aldığımız pyoderma gangrenoziuıı lezyomı olan bir Behçet hastası sunıyoruz.

Anahtar Kelimeler: Pyoderma gangrenoznm, Behçet hastalığı. Tedavi. Siklosporiıı

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Behcet's disease which was first described in 1937 by a Turkish dermatologist Hulusi Behcet. Main symptoms of Behcet's disease include oral aphtous ulcer and genital ulceration. A multitude of cutaneous vasculitic lesions including erythema nodosum, folliculitis, pustules and ulcerations arc seen although pyoderma gangrenosum is rare (1-3).

Many agents have been used in the therapy of both Behcet's disease and pyoderma gangrenosum reflecting, perhaps, the frequently unsatisfactory therapeutic responses. We report here our experience with cyclosporine (Cy) in the treatment of a patient with Behcet's disease associated with pyoderma gangrenosum.

Case Report

A 26-year old male Turkish patient presented in 1994 with a 3-month history of a painful ulcer on his left lower leg. The patient also gave a history of oral aphtous and scrotal ulcers for many years with recurrent pustular eruptions on his trunk. His family history revealed that his mother had been diagnosed as Behcet's disease previously.

Physical examination showed an oral aphthae on his tongue and scars of healed genital ulcers in the scrotum. The pathergy test was negative. On his left lower leg a 4x3 cm painful ulcer with sharply defined and elevated borders was observed. The ulcer was surrounded with a hyperpigmented area and the base was covered with a granulation tissue and somewhat showed necrotic foci (Figure 1). The ulcer was diagnosed as pyoderma gangrenosum clinically and it was confirmed with histopathological examination (Figure 2).

Full blood count, sedimentation rate, liver and kidney function tests, electrolytes and blood pressure were within normal range. Cy was administered orally twice daily in a dose of 5 mg/kg of body weight. Within 3 weeks of the treatment the

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Yazışma Adresi: Dr.Ferda ARTÜZ
Ankara Numune Hospital,
Dermatology Clinie, Ankara, TURKEY

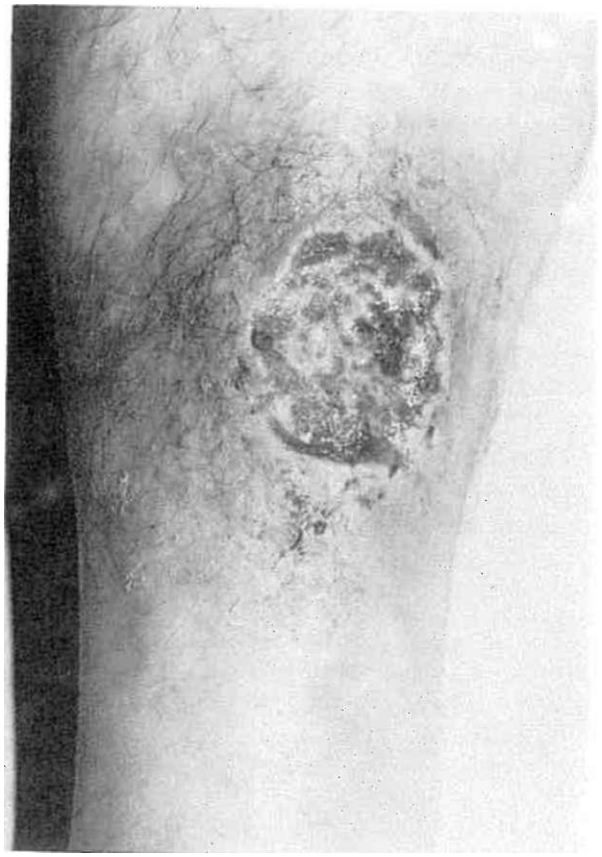


Figure **1.** Appearance of the pyoderma gangrenosum lesion before treatment.

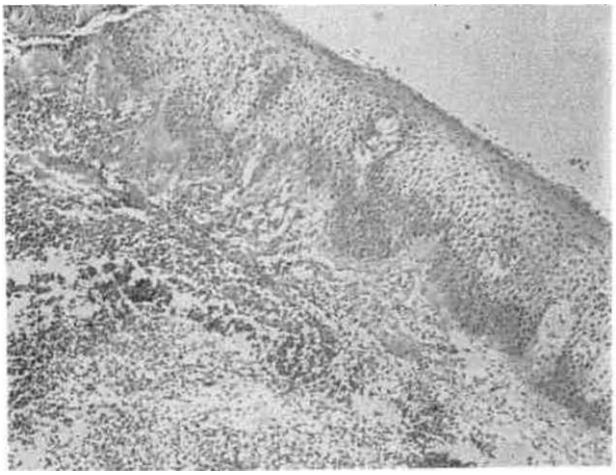


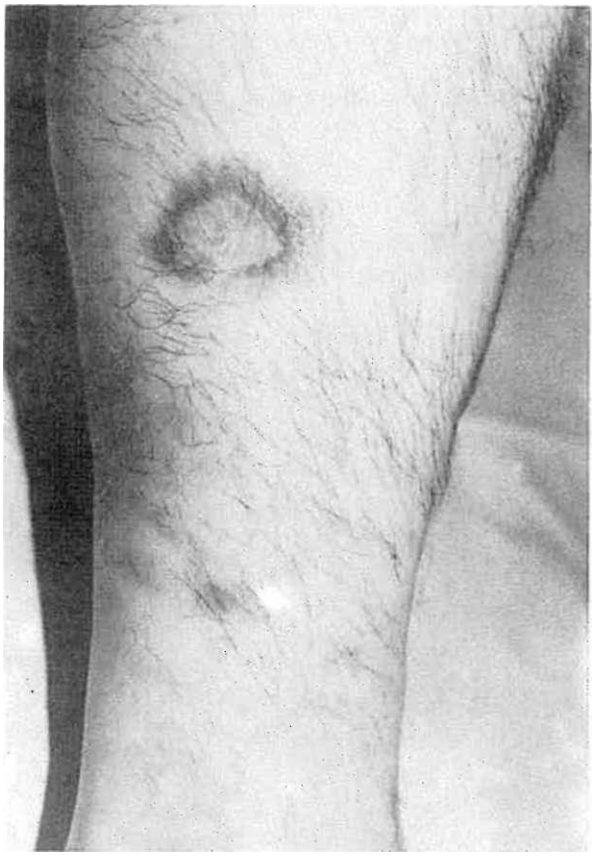
Figure 2. Marked infiltration with neutrophils in the dermis (HE X40).

ulcer started to heal. Over a period of 4 months, the dosage of Cy was gradually reduced to a maintenance dosage of 2,5 mg/kg/day. He had no recurrence of aphthae or genital ulcers and his leg ulcer remained healed (Figure 3). Clinical improvement was stable during a follow up period of 6 months.

Discussion

The immunological abnormalities which have been found in pyoderma gangrenosum arc diverse. Depression of cell mediated immunity with impaired delayed hypersensitivity and cutaneous allergy has been reported in association with a reduced ratio of circulating T-helper to T-suppressor lymphocytes. Defective neutrophil chemotaxis and neutrophil phagocytosis have also been reported and it has been suggested that the deposition of immune rcactants in the dermal vessel walls may be important in the pathogenesis of the disease (4).

The etiology of Behcet's disease remains unknown. It would seem likely that the disease initiation is a combination of a genetic propensity and an exogenous stimulus. The most widely held hypoth-



Pigure 3. Appearance **of the** pyoderma gangrenosum lesion titter treatment.

csis concerning the mechanism of tissue damage in Behcet's disease has been that this is an immune complex mediated disease (5).

The basic pathological lesion in Behcet's disease is a vasculitis of the small vessels with a perivascular lymphomonoiuiclear cell infiltrate. Pyoderma gangrenosum has also been suggested as a form of cutaneous vasculitis (1,6).

In view of the heterogenous nature of the postulated underlying causes, the spectrum of drugs used to treat the conditions is wide enough to encompass immunosupressants such as corticosteroids and azathioprinc.

Since its introduction in the mid-1970's, Cy has been used in the treatment of multiple inflammatory diseases of presumed autoimmune origin. Cy acts preferentially on T lymphocytes probably by limiting the production of interlcukin 2 and, in particular, by preventing precursor T helper cells from acquiring the ability to respond to interlcukin 2, thus inhibiting their proliferation and maturation. It appears that T suppressor cells are fully amplified in the presence of Cy.

Cy has been used in the treatment of various inflammatory and autoimmune dcrmatological diseases including psoriasis, alopecia areata, pyoderma gangrenosum, Behcet's disease, atopic dermatitis, lichen planus, generalized morphea and systemic scleroderma (4,7-9).

In different previous studies Cy has been reported to be effective in Behcet's disease and pyoderma gangrenosum. Peter and Ruzicka has suggested that treatment with Cy is primarily indicated in pyoderma gangrenosum and leads to good results in Behcet's disease with an acccptiblc risk-benefit ratio. Fradin et aI have concluded that a dose of 3-5 mg/kg per day, Cy is well tolerated by-most patients (2,4,5,8,9).

From these points of view we chose treatment of Cy for our patient as he had both pyoderma gangrenosum and Behcet's disease. The side effects of Cy has been reported as nephrotoxicity, hepatotoxicity, hypertrichosis, gum hypertrophy, normocytic normochromic anemia, gastointestinal disturbances, hyperacsthesiae, generalized epileptic fits and hypertension (4). We observed side effects neither at the initial nor at the maintenance dose of Cy in our patient but this is no way obviates the need to treat such patients under strict observation especially with respect to renal function.

Wc have found Cy valuable in the management of both pyoderma gangrenosum and the other manifestations of Behcet's disease (oral and genital ulcers) in our patient. The risk benefit ratio and the dosage of Cy treatment should be carefully considered in the management of Behcet's disease and we recommend it to be preserved for the complicated cases.

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