

Infliximab: Effective Therapy for Pustular Psoriasis

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Pustular psoriasis is often resistant to the standard therapies used to treat psoriasis vulgaris. Methotrexate, acitretin, and cyclosporine have been reported to be beneficial in the treatment of both psoriasis vulgaris and pustular psoriasis. Unfortunately, these agents have many side effects, which frequently preclude their use, and their efficacy in pustular psoriasis is often limited.

We report a patient with pustular psoriasis whose skin disease cleared after administration of infliximab, a chimeric IgG monoclonal antibody that specifically binds to human tumor necrosis factor alpha (TNF- α). Prior to treatment with infliximab, she had failed several therapeutic trials of both topical and systemic agents. (*Ann Dermatol* 15(4) 149~150, 2003).

Key Words : Infliximab, TNF- α , Pustular Psoriasis

Pustular psoriasis is a serious dermatologic condition that often requires hospitalization for acute flares. Current therapies for pustular psoriasis are limited either by their lack of efficacy or undesirable side effect profiles. We describe a patient with severe pustular psoriasis who had failed several standard treatments. As a result, we prescribed infliximab, which ultimately resulted in clearing of her pustular psoriasis. This report advocates further study of the use of infliximab for pustular psoriasis.

CASE REPORT

The patient is a 55 year old Caucasian female with a history of pustular psoriasis since 1994. Prior to her presentation at our institution, she received oral prednisone for over a year and predictably her pustular psoriasis flared with its discontinuation. After treatment with topical corticosteroids, UVB phototherapy alone was initiated and later in con-

junction with acitretin (an oral retinoid). In June of 1999, she suffered another flare, resulting in admission to a university hospital. She was treated with topical corticosteroids and started on methotrexate. The methotrexate dose was slowly increased until an acceptable response was achieved. Unfortunately, liver dysfunction precluded further use of this medicine. A trial of cyclosporine was subsequently attempted but was unsuccessful. Over the last two years she has been hospitalized twelve times for pustular psoriasis flares. After her most recent hospitalization, the decision was made to begin infliximab therapy, utilizing the protocol for rheumatoid arthritis. Informed consent was obtained from the patient, who was aware that infliximab was not a standard treatment for pustular psoriasis. Initially, two infusions of infliximab, each at a dose of 3mg/kg, were administered fourteen days apart. Her psoriasis completely cleared one week after the second infusion. Her third dose of infliximab was administered six weeks after the first dose. Subsequently, she has been maintained on infliximab infusions at 3 mg/kg every eight weeks. In addition, azathioprine, at a relatively low dose of 50 mg once a day, was initiated to reduce any potential immune response to the chimeric infliximab. Several months later, she continues to have minimal evidence of her pustular psoriasis.

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DISCUSSION

Acute generalized pustular psoriasis is a serious dermatologic disorder in which patients emergently present with a diffuse exanthem of sterile pustules, erythema, and scale¹. Fever, chills, and malaise often accompany the eruption.

Topical corticosteroids remain first line therapy, although their long term use is prohibited by tachyphylaxis, development of cutaneous atrophy, and rapid re-flare of the disease after discontinuation. Phototherapy, standard treatment for psoriasis vulgaris, is contraindicated in acute flares. Systemic medications like methotrexate, acitretin, and cyclosporine may be beneficial. However, many patients with pustular psoriasis fail to improve with these therapeutic agents or find their associated side effects intolerable.

Infliximab is a chimeric IgG monoclonal antibody that specifically binds to human tumor necrosis factor alpha (TNF- α), thereby reducing TNF-receptor mediated cellular events. Intravenous administration of infliximab is an established treatment of rheumatoid and psoriatic arthritis. The ability of infliximab to clear plaques of psoriasis vulgaris has also been demonstrated². We are introducing the following patient to advocate fur-

ther study of infliximab's potential role in the management of pustular psoriasis, as current therapies are limited by toxicity and/or lack of efficacy. The etiology of pustular psoriasis has yet to be fully elucidated. T lymphocytes and neutrophils actively participate in the induction of psoriasis vulgaris and pustular psoriasis³. However, neutrophils predominate in the skin of pustular psoriasis. Based on the dramatic improvement observed with infliximab in our patient with labile pustular psoriasis, the role TNF- α plays in the pathogenesis of pustular psoriasis appears to be critical.

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