Psoriasis Improved by Intravenous Immunoglobulin Therapy

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A 58-year-old man, suffering from psoriasis vulgaris for eight years, was admitted to our hospital in July 2004 because of gait disturbance and numbness of limbs. He had been treated for psoriasis vulgaris by various methods including topical and oral corticosteroids, vitamin D analogues, cyclosporine and phototherapy without any appreciable improvement. Therefore he had received no treatment for psoriasis vulgaris on admission. Physical examination revealed no abnormalities except skin eruptions on bilateral elbows, knees and hips. These eruptions looked like erythematous plaques covered by silvery scaling, a compatible finding with psoriasis vulgaris (Fig. 1A). The skin lesions were moderately pruritic and Auspitz’s sign was positive. The diameter of each plaque was about two to five cm. He had no arthritis. On neurological examination, he had normal cranial nerve function and normal limb muscle power. All deep tendon reflexes were absent. His vibratory and position sense was severely impaired up to knees and elbows. Touch, temperature, and pinprick sensations were mildly disturbed in the glove-stocking type. Coordination was clumsy in all limbs because of sensory loss. He had gait ataxia with Romberg’s sign. Routine laboratory tests were normal. The serum concentration of IgM was 1,014 mg/dl (normal range; 51-260 mg/dl), but other immunoglobulins were within the normal range. Serum immunoelectrophoresis showed IgM κ type monoclonal gammopathy. Autoantibodies including anti-DNA, anti-SS-A and anti-SS-B, were not detected. The titer of cold agglutinin was not increased. There was no cerebral spinal fluid (CSF) pleocytosis, but CSF protein level was 300 mg/dl. Motor nerve conduction velocity was slightly reduced for all four limbs, and sensory nerve action potential could not be recorded. Enzyme-linked immunosorbent assay confirmed that the serum obtained from this patient before treatment contained extremely high IgM antibody titters against sulfated glucuronyl paragloboside. We clinically diagnosed this patient as having chronic inflammatory demyelinating polyneuropathy (CIDP). In July 2004, intravenous immunoglobulin (IVIg) therapy, 400 mg/kg/day for 5 days, was administered for CIDP. His sensory impairment began to improve five days after starting IVIg therapy. Two weeks later, he found his psoriasis vulgaris on elbows, knee and hips improved dramatically (Fig. 1B). He did not have alternated effects of IVIg therapy. He had no psoriasis for six months.

Psoriasis vulgaris is a common, chronic, recurrent, inflammatory disease of the skin and is characterized by erythematous, dry, scaling plaques of various sizes. It is considered an autoimmune disease, where T cells may play a key role in the pathogenesis (1). Although there are several therapies for psoriasis including topical corticosteroid, vitamin D analogues, systemic immunosuppressants, and phototherapy, any of these therapies is likely to lose its effectiveness gradually, and recurrences invariably occur (2, 3). Recently, there are several reports on the usefulness of the biologic anti-rheumatic drugs for psoriatic arthritis (4). The biologic alefacept, etanercept, infliximab and efalizumab appear to be safe and effective in the treatment of the joint and skin manifestations of psoriatic arthritis with less toxicity than traditional therapies. Since this patient did not receive the biologic agents, the effect of the biologic therapy was undetermined in this case.

IVIg therapy is known to be effective for treatment of immune-related polyneuropathy such as CIDP and Guillain-Barré syndrome. In the literature, only Gurmin et al (5) reported three patients with psoriasis and psoriatic arthritis whose joint symptoms were improved by IVIg therapy, but there was no significant improvement in the cutaneous lesions. Our patient suffered from CIDP and psoriasis at the same time. IVIg therapy improved not only CIDP symptoms but also psoriasis dramatically. Thus, this case fortunately indicated that IVIg therapy might be an effective treatment for intractable psoriasis.

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Figure 1. A: Before IVIg therapy, typical psoriatic lesions were evident in his elbows. B: After IVIg therapy, psoriatic lesions disappeared.

References


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