Successful Treatment of Pemphigus Vulgaris with Prednisolone and Tranilast

Sir,

Tranilast, N-(3,4-dimethoxycinnamoyl) anthranilic acid, has been used clinically as an anti-allergy drug (1). Recently it has been reported from Japan that it can be an effective treatment in combination with other forms of treatment for several bullous diseases such as dermatitis herpetiformis Duhring (2). Here we report the successful effects in a patient with pemphigus vulgaris.

CASE REPORT

A 37-year-old Japanese man was referred to our clinic in April 1990 for investigation and management of erosions affecting the palate, gingiva, face, scalp, chest and back. He gave a 2-month history of gingival erosions with bleeding, and erosions on his palate, face, and scalp, and a 1-month history of bullae on his chest and back. A skin biopsy taken from a bulla on his chest showed hyperkeratosis and an intraepidermal blister with a mononuclear cell infiltrate in the papillary dermis. Some of these cells infiltrated into the epidermis. An examination using direct immunofluorescence showed deposit of IgG and C_3 in the intercellular space of the epidermis. Anti-epidermal antibody was detected in the serum (1/240), and deposits of intercellular substance were observed with indirect immunofluorescence. The diagnosis was made on the basis of the multiple erosions in the oral cavity and bullae on the head and trunk and the findings on histopathology and immunofluorescence. At first, the patient was only treated with oral prednisolone (40 mg/day) from April 1990. This was gradually decreased and dapsone (75 mg/day) was started in July 1990. As multiple erosions recurred on his scalp and face in October 1990 despite the combination therapy of prednisolone (15 mg/day) and dapsone (75 mg/day), intramuscular sodium aurothiomalate was started immediately at a dose of 25 mg once a fortnight. However, erosions recurred in July 1991 on his face, and so azathioprine (50 mg/day) was started in September 1991. Although erosions recurred on the gingiva in July 1993, and on the face, upper arm and back in August 1993, most erosions had regressed by November 1993 as the result of increasing the doses of prednisolone, azathioprine and dapsone, but there was still a walnut-sized erosion with crusts on the scalp and there were several residual rice-grain-sized erosions on the face. The medication at this time consisted of oral prednisolone (15 mg/day), dapsone (100 mg/day), azathioprine (100 mg/day) and intramuscular sodium aurothiomalate (25 mg once a fortnight). Tranilast (300 mg/day) was therefore added in February 1994. The erosions on the patient's scalp and face gradually disappeared: erosions on his face regressed in November 1994, and the erosions and crusts on the scalp in March 1995. Azathioprine was stopped in January 1995, intramuscular sodium aurothiomalate in February 1995, and dapsone in April 1995. The patient has since been treated with prednisolone (7.5 mg/day) and tranilast (300 mg/day) and erosions have not recurred. Minocycline 100 mg once daily was administered from November 1991 to November 1993 but was almost ineffective. Anti-epidermal antibody was detected in the serum (1/120) in September 1990 but was not detectable in August 1995.

DISCUSSION

Although we used prednisolone, azathioprine, dapsone and sodium aurothiomalate in the treatment of our patient, he had three recurrences and at no point did his eruptions disappear. However, after starting tranilast, all of his lesions regressed

and he has had no recurrence despite discontinuing azathioprine, intramuscular sodium aurothiomalate and dapsone. It has been reported that tranilast is an effective treatment for several bullous diseases such as dermatitis herpetiformis Duhring (2), linear IgA bullous disease (3), herpetiform pemphigus (4) and pemphigus vegetans (Neumann type) (5). Two of these cases (2, 3) were treated with dapsone and tranilast, one case (4) was treated with dapsone, tranilast and sodium aurothiomalate, one case (5) was treated with plasma exchange, prednisolone, dapsone, minocycline and tranilast. Combination therapy with dapsone was carried out in all 4 cases, but not for our case. At pharmacologic concentration, tranilast inhibits passive cutaneous anaphylaxis in vivo and chemical mediator release from mast cells in vitro (1) and has been shown to inhibit reactive oxygen species generated by xanthine-xanthine oxidase and zymosan-stimulated polymorphonuclear leukocytes (6). Recently, tranilast has been found to selectively inhibit collagen accumulation in rat carrageenan-induced granulation tissue in vivo (7) and to inhibit collagen synthesis and collagen mRNA levels in skin fibroblasts in vitro (8). The mechanism regarding the effect for pemphigus vulgaris is not yet clear. We believe that tranilast is effective because it inhibits IgE-mediated histamine release from mast cells (9) and inhibits the production and release of eosinophil chemotactic factor of anaphylaxis (10, 11).

We conclude that tranilast is a useful effective adjunct in the treatment of pemphigus vulgaris.

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