Bullous Pemphigoid Treated by Topical Corticosteroids

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Three patients with bullous pemphigoid have been successfully treated with topical corticosteroids (clobetasol propionate) alone. Another patient required adjuvant systemic corticosteroid therapy. In view of its minimal side effects, we confirm a previous report that topical corticosteroid therapy could represent a valuable alternative in the treatment of limited bullous pemphigoid, although for its extensive forms, such therapy may be incomplete.

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Bullous pemphigoid (BP) is a serious cutaneous disease. Mortality is high in the elderly (25%), occurring mainly during the first 3 months. High doses of systemic corticosteroids, generally associated with other immunosuppressive drugs, represent an effective therapy (1). They are, however, often responsible for serious side effects (e.g. hypertension, ionic and metabolic imbalance, severe infections) that can lead to death. Excellent results have recently been reported in cases of BP treated exclusively with a potent topical corticosteroid in a cream base (2). We confirm these results in 3 patients presenting a low-blistering BP.

CASE REPORTS

Case 1

For the past 2 months, a 76-year-old woman had suffered from itchy erythematous plaques mainly located on the back, umbilicus, soles and internal side of arms and legs. Blisters developed progressively on the plaques. On admission, approximately twenty open or closed, disseminated, medium-size (up to 1 cm in diameter) blisters were observed. Some 3–10 new blisters appeared each week. Histological investigations (including direct and indirect immunofluorescence microscopy) confirmed the clinical diagnosis of BP. After hexamidine application, topical clobetasol propionate (Dermovate® cream) was applied twice daily on the lesions for 6 weeks, without occlusion. Each individual lesion healed in 1–3 weeks. An estimated daily average of 10 g of cream (i.e. 5 mg clobetasol propionate) for the first 3 weeks and 5 g for the last 3 weeks was used. Blood pressure remained unchanged, as well as total white cell count, ions, blood and urinary glucose. After 6 weeks of treatment, the plasma cortisol level was measured in the morning following overnight fasting and one hour after intramuscular administration of 1 mg of adrenocorticotropic hormone (ACTH test). The basal titres were in the normal range and the ACTH test gave a normal positive response, indicating an intact pituitary-adrenal function. For 6 months at home, treatment of a few new plaques or blisters made it possible to keep the disease at a very low grade of activity with an excellent quality of life.

Case 2

An 82-year-old woman was admitted with a very similar BP. Twenty-seven disseminated blisters had developed on normal skin or on erythematous itchy plaques. About five new blisters developed each week. After histological confirmation of BP, the topical treatment with clobetasol propionate was applied as in Case 1. The treatment allowed discharge from the hospital with complete healing after 6 weeks. The extent of the lesions was nearly identical with that in Case 1 and nearly the same quantity of cream was used. Clinical and biological follow-up was also performed to observe similar normal values. No local or systemic side effects caused by topical corticosteroids could be detected. Weekly observation for 3 months revealed no new lesion, even in the absence of therapy.

Case 3

A 66-year-old man developed suddenly a cutaneous eruption with large blisters (more or less 20) disseminated on erythematous plaques on the limbs and the chest. The disease displayed the clinical and immunohistological features of BP. It occurred simultaneously with the administration of urinary antiseptic nifurtoinol. This drug was stopped and the lesions healed spontaneously and slowly. The application of clobetasol propionate twice daily for 3 weeks without occlusion (approximately 10 g of cream per day) considerably increased the rate of healing and facilitated a complete recovery. Clinical and biological side effects were monitored as in Case 1, except that the ACTH test was not performed. There was no adverse steroid reaction.

Case 4

A 76-year-old woman presented itchy erythematous plaques on the back, the arms and the buttocks that had progressed for several weeks. A first biopsy revealed the presence of an eosinophilic infiltrate, while a second biopsy, collected 2 weeks later, confirmed the diagnosis of BP. Topical corticosteroids did not prevent the development of abundant medium and large blisters. Topical therapy with clobetasol propionate was continued twice daily without occlusion for 5 weeks (i.e. 10 g of cream per day) simultaneously with parenteral methylprednisolone (125

mg per day) and 100 mg/day azathioprine to achieve a rapid clearing of the lesions and suppression of the pruritus. The dosage of systemic corticosteroid was tapered down rapidly to 24 mg in 5 weeks, with no recurrence of lesions. Even in the absence of antiseptic, all skin lesions healed in a few days without infection. Clinical and biological follow-up as in Case 1 showed no additional side effects with the combination of systemic and topical corticosteroids, other than those classically reported with systemic corticotherapy alone.

DISCUSSION

BP is often treated with a high dose of systemic corticosteroids, resulting in adverse reactions, frequently severe in aged patients. Various aggressive therapies have been used alone or as adjuvants to reduce the need for systemic corticosteroids: gold salts, sulfapyridine, sulfones, immunosuppressors (cyclophosphamide, azathioprine, methotrexate), cyclosporine, erythromycin and plasma exchanges. In some forms of BP, as in our Case 4, the action of topical corticosteroids may not be entirely satisfactory, but topical therapy is an adjuvent of systemic treatment. In limited or mildly blistering forms (less than 5 new blisters per day), topical corticosteroids were successful and suppressed the need for systemic drugs. The epithelialization of open bullae and the clearing of erythematous plaques occurred within 1 to 3 weeks. The itching or burning sensations also rapidly disappeared. Highly potent (class I) topical corticosteroids were applied twice daily without occlusion. Even without previous application of an antiseptic, no infection of the erosions occurred. In addition to the application on open or closed bullae and plaques, the treatment of the adjacent sites (with a margin of 5 cm) inhibited the development of new lesions in these areas. For individual lesions, continuing the application for one week after complete healing prevented local recurrence. Systemic side effects, measured by blood pressure, total white cell count, blood and urinary glucose, ionogram, cortisol blood level and ACTH test, were absent or negligible.

According to our experience with the first 2 cases, it seems that the mildly blistering BP evolute spontaneously during periods of relapse and partial remission. We do not know what factors can initiate a recurrence of the disease, since no major event could be recognized preceding the lesions in our 2 patients. The levels of antibody to the basal lamina found in BP are not correlated with the severity of the disease, since high titres may be present even when the patient's condition improves. In these patients, who are of advanced age and are already taking various drugs, potential initiating factors, as demonstrated in our Case 3, could possibly be the medication itself. Amiodarone, clonidine, D-penicillamine, furosemide, penicillin and sulfasalazine are all known to induce bullous eruptions resembling the clinical, histological and immunologic characteristics of BP (3). In Case 3, nifurtoinol might have been responsible for the disease. The clinical follow-up of our patients is too short and their number too limited to evaluate the precise long-term prognosis of the low-blistering BP. Based on this short observation time, our results confirm that the use of topical steroids is justified to treat the benign forms of the disease.

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