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Long Term Plasma Exchange Therapy in Bullous Pemphigoid

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Long term plasma exchanges associated with corticosteroids (11 patients) were compared with corticotherapy alone (10 patients) for the treatment of bullous pemphigoid. The patients having long term plasma exchanges showed a lower rate of relapses at six months and needed less corticosteroids. *Key words: Maintenance therapy; Corticosteroid therapy; Early relapse.* (Received April 30, 1985.)

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Bullous pemphigoid is a blistering autoimmune skin disease characterized by linear deposits of immunoglobulins and complement components along the basement membrane zone (BMZ). Circulating antibodies against BMZ are present in 2 out of 3 patients and circulating immune complexes are often detected. The usual therapy for bullous pemphigoid is high dosage of corticosteroids associated with immunosuppressive drugs in the more severe forms of the disease. Adverse reactions to these treatments are serious. Recently in a few open studies (1, 2, 3, 4, 5), plasma exchanges (P.E.) appeared to be effective in the treatment of bullous pemphigoid. A multicentric randomized trial suggest that plasma exchanges allows a substantial saving of corticosteroids in the management of the disease (6). However the rôle of long term plasma exchanges in bullous pemphigoid is unknown. We report an open study of 18 patients treated with or without periodical P.E. given after a remission (defined as more than 6 weeks) was obtained.

PATIENTS AND METHODS

Eighteen patients were included in this study, 5 women and 13 men, 46 to 88 years old. The diagnosis of bullous pemphigoid was confirmed by histopathology and immunological studies. Circulating antibody against BMZ was present in 11 patients.

All patients in this study were in remission after the first treatment (corticosteroids alone, corticosteroids and plasma exchanges, or plasma exchanges alone). The corticosteroids dose (prednisolone) was reduced every 15th day by 15% approximately of the previous dosage.

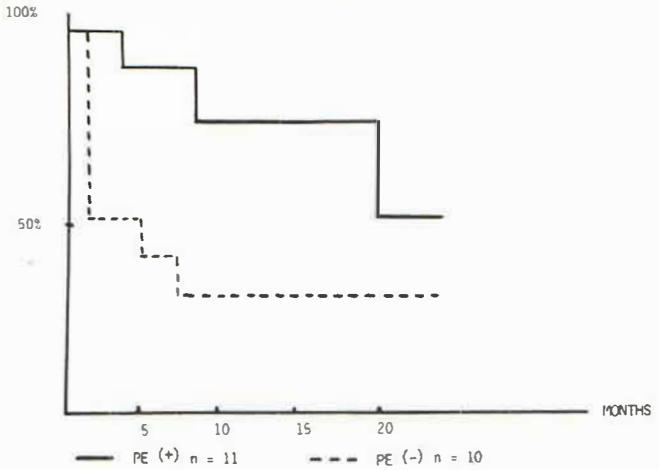

Fig. 1. Actuarial curve of remission.

Ten patients were treated without long term P.E. Five patients received long term P.E. after a first remission and six after a second remission (11 patients with long term P.E.). The P.E. were performed 3 times during one week, each month during 3 months, then one week every second month during the following 3 or more months. The exchanges were done by centrifugation (Haemonetics 30). 20 to 30 ml/kg (about 1/2 at 1/3 of the theoretical plasma volume) were exchanged in each procedure. Human albumin, Ringer lactate and Plasmagel were used as replacement solution, citric acid dextrose as anticoagulant. Dexchlorpheniramine was administered intravenously before every exchange.

RESULTS

Side effects

One patient died during the study from cardiac failure three days after one P.E. The direct responsibility of P.E. in the death was not clearly demonstrated. Chills and fever (3 cases), hypotension (2 cases), bradycardia (2 cases), hypoprotidemia (2 cases) were also observed. No complication occurred in eight patients.

Clinical results

In the group without long term P.E. (10 patients), 6 relapses were observed, often occurring early after the initial remission: 5 cases at 2 months, one at 5 months. The 4 other cases were still in remission at 6, 18, 24 and 43 months respectively. The mean daily dosage of corticosteroid at the time of the relapse was 19 mg± 10.68.

In the group with long term P.E. (11 cases), 4 patients relapsed at 3, 8, 11 and 18 months respectively. The seven other cases were still in remission at 3, 7, 8, 8, 13, 16 and 18 months respectively. The mean daily dosage of corticosteroid at the time of the relapse was 12±7.84 mg/j.

Using actuarial method for statistical test, the number of relapses at 6 months are significantly lower ($p<0.001$) in the group with long term P.E. However, in the two groups prolonged remission was observed in some patients (Fig. 1).

DISCUSSION

This retrospective study demonstrates that long term P.E. may reduce the number of early relapses of bullous pemphigoid. These results must be interpreted with caution because of

the small number of patients and the lack of randomization. The use of P.E. is an effective treament of bullous pemphigoid as an initial treatment. It can reduce the dose of corticosteroid required to control the disease (6). When used without any associated therapy, P.E. can also control some patients, as was previously reported by our group (3). However a rebound of antibody levels has been noted in another work (1).

The mechanism of P.E. in the treatment of bullous pemphigoid remains unclear: clearance of autoantibodies or of circulating immune complexes is postulated, but the antibody titer in P.B. is not correlated with disease severity (7) and the pathogenic role of anti-BMZ antibodies is not clearly demonstrated (8). An activation of the reticuloendothelial system (9) or a modulation of monocyte functions (10) are also hypothesized. Moreover the depletion of non-specific substances such as complement components or inflammatory mediators is possible.

Long term P.E. in association with decreased corticosteroid therapy seems to be effective in avoiding early relapses of the disease. However, the method is expensive and the risk of severe complications is undeniable. A randomized multicentric study to evaluate the benefit of long term P.E. in bullous pemphigoid would be useful.

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