

Pentoxifylline (anti-tumor necrosis factor drug): effective adjuvant therapy in the control of ocular cicatricial pemphigoid

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Abstract

PURPOSE:

The detection of tumor necrosis factor- α (TNF- α) in conjunctiva affected by ocular cicatricial pemphigoid (OCP) may indicate that this cytokine plays an important role in its pathogenesis. The purpose of this randomized, controlled, comparative, blinded study was to evaluate the effectiveness of adding pentoxifylline as an anti-TNF- α drug to the well-documented therapy of steroids and cyclophosphamide in controlling OCP.

METHODS:

Thirty patients with different grades of OCP were included. They were randomly divided into 2 equal groups. Group A patients received pulse steroid and cyclophosphamide therapy; in addition, group B patients received intravenous pentoxifylline. Patients were evaluated before and after therapy clinically, histopathologically, and serologically (serum level of TNF- α). Twenty controls were included to compare their serum TNF- α level with that measured in patients with OCP.

RESULTS:

Group B patients showed a more significant improvement in their clinical and histopathologic evaluation. The serum TNF- α was significantly higher in OCP cases prior to therapy compared to the control group ($p = 0.0001$). Following therapy, serum TNF- α showed a more significant reduction in group B patients (77.4 ± 26.1 to 19.2 ± 15.6) compared to group A patients (50.3 ± 14.3 to 36.2 ± 18.3).

CONCLUSIONS:

The significantly increased level of serum TNF- α in OCP as compared to controls proves that TNF- α has an important role in the pathogenesis of this disease. The study illustrates that the addition of pentoxifylline to pulse steroid cyclophosphamide therapy is an effective, safe, and economical method in controlling OCP through directly reducing TNF- α levels, with long periods of remission as detected in our 18-month follow-up period.

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