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THE EFFECT OF DURATION AND APPLICATION MODE OF HIGH DOSE CORTICOSTEROID THERAPY IN GRAVES' OPHTHALMOPATHY

ABSTRACT

Aim of the study was to evaluate the efficacy of high-dose intravenous methylprednisolone (ivMP) therapy in the treatment of Graves ophthalmopathy (GO). The study group included 22 euthyroid patients with GO. Fourteen patients (group A) were treated with two doses of 500 mg ivMP during three days, followed by oral prednisone 40 mg/d tapered to 10 mg/d in four weeks. Six courses of therapy were performed.. Eight patients (group B) were treated with two doses of 1000 mg ivMP by week during 6 weeks. Clinical activity score (CAS) was improved in all patients - before treatment: median 5, min 3, max 7 and after: median 2, min 1, max 4 in A group, and median 6, min 4, max 7 vs. median 2, min 1, max 4 in B group ($p < 0.01$). CAS remained stable 12 months after treatment in A group. In B group CAS returned to the pretreatment values in 4 patients. Proptosis was significantly reduced in A group (the difference of mean values 1.4 mm; $p < 0.01$), but not in B group (the difference 0.5 mm). Visual acuity was improved in 2 of 5 patients in A group. In B group visual acuity was normal before the treatment. Five of 9 patients experienced loss or amelioration of diplopia after a 3- 6 month treatment in A group. All patients in B group registered mild-to-moderate, mostly transient improvement of diplopia. The extraocular muscle thickness assessed by orbital CT scan showed reduction in 10 patients in A group (mean score before and after treatment was 6.9 and 3.8 respectively), and in all patients in B group (7.2 and 3.2). Three of 8 patients in B group showed pronounced impairment of CAS, proptosis and/or extraocular muscle function shortly after the treatment was discontinued, and required some other way of treatment. In conclusion, high-dose ivMP therapy is effective and safe for the treatment of GO, but we find the prolonged treatment more promising and with lower risk of eye disease recurrence.

KEY WORDS: Graves' ophthalmopathy, corticosteroid therapy