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Duration of intravenous glucocorticoid therapy in patients with Graves ophthalmopathy

A new study has found that most patients with active Graves ophthalmopathy respond to a 6–8 week course of intravenous glucocorticoids. These findings call into question whether the standard 12-week course is necessary in patients who do not respond by 8 weeks.

Glucocorticoids are the first-line therapy for patients with active Graves ophthalmopathy. Previous studies have shown that intravenous administration is

more effective than an oral dose. Which factors influence how a patient responds to glucocorticoid therapy has not yet been determined, although individual variability in treatment response might be due to polymorphisms in the gene that encodes the glucocorticoid receptor. Guia Vannucchi and colleagues have now investigated the response to intravenous glucocorticoids and the effect of different polymorphisms.

The study included 58 patients with active moderate-to-severe Graves ophthalmopathy who were treated with a cumulative dose of 7.5 g of methylprednisolone. Participants were treated for either 12 weeks or 16 weeks. The factors used to evaluate treatment response (clinical activity score and the degree of bulging of the eye and double vision) were determined at baseline and then at 6–8, 12–16 and 24–30 weeks after the first infusion. Three polymorphisms in the glucocorticoid receptor gene

(ER22/23EK, N363S and Bcl1) were evaluated in 43 of the patients.

The researchers found that 70% of the patients responded well and had inactivation of Graves ophthalmopathy by 6–8 weeks. A further 10% had responded by 12–16 weeks. The polymorphisms were not found to be associated with the response to therapy or the occurrence of adverse events.

According to the researchers, these findings suggest that patients who are unlikely to respond to glucocorticoid therapy need to be identified early so that an alternative treatment regimen can be initiated.

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Original article Vannucchi, G. *et al.* Therapeutic outcomes of intravenous steroid therapy for active Graves orbitopathy: relationship with time of response and glucocorticoid receptor polymorphisms. *Eur. J. Endocrinol.* doi:10.1530/EJE-13-0611



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