Clinical activity score as a guide in the management of patients with Graves' ophthalmopathy - 1997

THE LENS

Objective

To determine which patients with Graves' Ophthalmopathy will respond to immunosuppressive treatment based on a Clinical Activity Score (CAS).

Methods

Design: Double-blinded Prospective Study

Sample Size: 43 patients

Design:

- CAS score before, on the day of, and after the start of either oral prednisone (22) or retrobulbar irradiation (21) in patients with moderate to severe Graves' ophthalmopathy.

Outcome Measures:

- Improvement in NOSPECS class or grade. (A score validated to grade Graves' severity)

Results

Clinical activity score (CAS) made from 10 components

Pain	1	Painful, oppressive feeling on or behind the globe, during the last 4 weeks
	2	Pain on attempted up, side or down gaze, during the last 4 weeks
Redness	3	Redness of the eyelid(s)
	4	Diffuse redness of the conjunctiva, covering at least one quadrant
Swelling	5	Swelling of the eyelid(s)
	6	Chemosis
	7	Swollen caruncle
	8	Increase of proptosis of ≥2 mm during a period of 1–3 months
Impaired function	9	Decrease of eye movements in any direction ≥5° during a period of 1–3 months
	10	Decrease of visual acuity of ≥1 line(s) on the Snellen chart (using a pinhole) during a period of 1–3 months

Immunosuppressive treatment offered significant improvement in patients with CAS scores ≥ 4

- The pretreatment CAS was significantly higher in responders than in non-responders
- 12/22 responders and 3/21 non-responders had a CAS ≥ 4 (55% vs 14%; $P < 0.01$)
- Using CAS of 4 as cut-off point, the accuracy of CAS in predicting the therapeutic outcome was: specificity 86%, sensitivity 55%, positive predictive value 80%, negative predictive value 64%

TLDR: The clinical activity score is an easy, inexpensive, and entirely clinical score that has a high predictive value for the outcome of immunosuppressive treatment in Graves' Ophthalmopathy.

Mourits et al. Clinical activity score as a guide in the management of patients with Graves' ophthalmopathy. *Clin Endocrinol (Oxf)*. 1997 Nov;47(5):632.