

Iberoamerican Journal of Medicine

ISSN: 2695-5075 ISSN-L: 2695-5075

iberoamericanjm@gmail.com

Hospital San Pedro

España

Bakshi, Satvinder Graves' ophtalmopathy Iberoamerican Journal of Medicine, vol. 4, núm. 2, 2022, pp. 128-130 Hospital San Pedro España

DOI: https://doi.org/10.53986/ibjm.2022.0013

Disponible en: https://www.redalyc.org/articulo.oa?id=692072546004



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Journal homepage: www.iberoamjmed.com

## Clinical Image

# Graves' ophtalmopathy

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#### ARTICLE INFO

Article history:Keywords:Received 19 January 2022Graves' ophtalmopathy

Received in revised form 24 February 2022 Graves' disease
Accepted 26 February 2022 Hyperthyroidism

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### Oftalmopatía de Graves

#### INFO. ARTÍCULO

Aceptado 26 Febrero 2022

Historia del artículo: Palabras clave:

Recibido 19 Enero 2022 Oftalmopatía de Graves
Recibido en forma revisada 24 Febrero 2022 Enfermedad de Graves

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How to cite this article: Bakshi S. Graves' ophtalmopathy. Iberoam J Med. 2022;4(2):128-130. doi: 10.53986/ibjm.2022.0013.

A 45-year-old female patient suffering from Graves's disease presented with dryness, blurring of vision, and protrusion of her eyes for 2 months. Ocular examination revealed bilateral proptosis with the widening of the palpebral fissure and retraction of both upper and lower eyelids (Dalrymple's sign) (Figure 1). She also had upper lid lag on looking down (Von Graefes sign), lower lid lag on looking up (Griffith sign), deficient convergence (Mobius sign), and infrequent blinking (Stellwag's sign). In addition,

there was decreased visual acuity and restriction in extraocular movements in both eyes. The patient was started with carbimazole and propranolol, lubricating eye drops, gel, and intravenous methylprednisolone pulse therapy. At 3 months, follow up her thyroid profile was normal and proptosis had reduced.

Hipertiroidismo

Graves ophthalmopathy (GO) is the most common extrathyroidal manifestation of Graves' disease (GD) characterized by immunological tolerance to the thyroid-

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Figure 1: Patient with bilateral proptosis and widening of the palpebral fissure and retraction of both upper and lower eyelids (Dalrymple's sign).

stimulating hormone receptor (TSH-R) [1]. Most patients are hyperthyroid. However, some may be euthyroid. The incidence of GO is 16 women or 3 men per 100,000 person per year. The pathogenesis comprises (1) inflammation of the periorbital soft tissues; (2) overproduction of glycosaminoglycans by orbital fibroblasts; and (3) hyperplasia of adipose tissue. 2 The extracellular matrix rich in glycosaminoglycans makes it highly hydrophilic, increasing its capacity to retain water making the extraocular muscles swell dramatically. In addition, adipogenesis also results in increased orbital tissue volume [2]. There are two stages in the natural history of GO: the first one is the active stage, observing an increased inflammation and rapid progression; it is followed by an inactive phase (second stage) in which the inflammatory signs and symptoms gradually reduce. However, the muscular edema along with increased production of collagen ultimately lead to fibrosis and sclerosis resulting in restrictive strabismus, proptosis and persistent lid retraction. The treatment depends on the stage, in the active stage anti-inflammatory treatment with

glucocorticoids, cyclosporine, or mild low dose radiation is carried out, in sight-threatening cases orbital decompression should be carried out [3]. In the inactive stage, rehabilitative surgery like eyelid and strabismus correction can be done [2].

### 1. CONFLICT OF INTERESTS

The authors have no conflict of interest to declare. The authors declared that this study has received no financial support.

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