

## 2. A CASE OF GRAVES ORBITOPATHY TREATED WITH TOCILIZUMAB

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**Introduction.** Graves' orbitopathy (GO), one of the main extrathyroidal manifestations of diffuse toxic goiter, can have a severe evolution in 5% cases and even lead to sight loss. The first-line treatment is intravenous methylprednisolone. Rarely there is a lack of response to corticosteroids, or there are certain contraindications (recent viral hepatitis, significant hepatic dysfunction, severe cardiovascular morbidity, or psychiatric disorders). Therefore, alternative treatment methods have been found. Tocilizumab (TCZ) is a monoclonal antibody inhibitor of the interleukin-6 receptor, implicated in GO's pathogenesis (expressed in adipocytes, fibroblasts, and macrophages of orbital tissue).

**Case presentation.** A 46 years old Caucasian female known with hyperthyroidism is admitted to the endocrinology unit of „Timofei Moşneaga" Hospital with asymmetrical bilateral exophthalmos, convergent strabismus, spontaneous retrobulbar pain, movement induced pain, scratchy sensation, hyperlacrimation, sometimes- diplopia. Her past medical history had developed 8 months prior to our hospital admission. At that time she'd been diagnosed with diffuse toxic goiter and endocrine ophthalmopathy, treated with antithyroid drugs, beta-blockers and the last 2 months with oral corticosteroids. During this period, the ocular symptoms worsen, therefore she's referred to the Endocrinology Department. Also, for the last 20 years, she's known with a psychiatric disorder, treated with risperidone daily. The CAS (4 points out of 7- spontaneous pain, movement induced pain, conjunctival hyperemia, palpebral edema) and NOSPECS score (4B, 5, 6A) established a severe, active form of GO. Laboratory findings: TSH 0.01 UI/ml, fT3 4.01 pmol/l, fT4 21.51 pmol/l and positive TR-Ab (6.69 IU/L). Orbit MRI confirms asymmetrical bilateral exophthalmos (R>L), convergent strabismus of the right eye. A second line treatment was chosen for this patient with severe and active GO, because of lack of response to corticosteroids and contraindications for IV methylprednisolone (psychiatric disorder), with TCZ (IV 8 mg/kg) at 4-week intervals for 4 months. Following the first dose of TCZ the patient improved significantly clinically (with 2 points in CAS score).

**Discussion.** Some studies have shown the efficacy of TCZ in the treatment of GO, but as long as there are no clear guidelines for its use, every case is important to establish the further management of corticosteroid-resistant Graves orbitopathy.

**Conclusion.** Tocilizumab remains a second-line treatment of glucocorticoid-resistant Graves orbitopathy or for those with contraindication for systemic corticosteroid treatment. Major cost, high rate of recurrence, and side effects are the main inconveniences.