CASE REPORT

Severe eyelid oedema in Graves' ophthalmopathy

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SUMMARY

We report a case of severe eyelid oedema due to Graves' ophthalmopathy (GO). The aim was to present a case report and review of the literature about eyelid oedema due to GO. The case report includes a history of patient data and literature review. The patient was offered intravenous methylprednisolone and gave consent. A dosage of 500 mg intravenous methylprednisolone once weekly for 6 weeks, followed by 250 mg intravenous methylprednisolone once weekly for 6 weeks, with a total treatment period of 12 weeks was given. Up to day, minor improvement has been observed. Severe eyelid oedema due to GO is a rare manifestation of Graves' disease. In cases of active and moderate-to-severe disease, treatment with intravenous glucocorticoids is recommended alone or with orbital radiotherapy, followed by rehabilitative surgery.

Figure 2 Severe eyelid oedema due to Graves' ophthalmopathy (lateral image).

DESCRIPTION

A 55-year-old woman presented to our department with disfiguring, marked upper and lower eyelid swelling, pruritus and intermittent diplopia during the previous 4 months. She was smoking 20–30 cigarettes/day. Physical examination revealed resting tachycardia (110 bpm), gross periorbital oedema, (figures 1 and 2) and slightly enlarged thyroid gland. Ophthalmic disease activity score was 5/7, with moderate severity. Thyroid-stimulating hormone was suppressed at 0.005 µIU/L (reference range 0.27–4.2). Free thyroxine and triiodothyronine levels were 2.39 ng/dL (reference range 0.7–2) and 3.23 ng/mL (reference range 0.8–2), respectively. TSH-receptor antibodies were elevated at 32 IU/L (normal values <1.75), anti-TPO were 66.4 IU/L (normal values <45), while antithyroglobulin antibodies were negative. Graves' disease

(GD) was diagnosed and the patient was started on methimazole and propranolol and was subsequently admitted for intravenous glucocorticoid pulse therapy (500 mg intravenous methylprednisolone once weekly for 6 weeks, followed by 250 mg intravenous methylprednisolone once weekly for 6 weeks, with a total treatment period of 12 weeks). Up to day, minor improvement has been observed. Graves' orbitopathy (GO) is the commonest extrathyroidal manifestation of GD (50% of cases) and it is of autoimmune aetiology.¹ Severe oedema without exophthalmus, as in our case, is rare. According to the guidelines proposed by the European Group on GO (EUGOGO), in cases of active and moderate to severe disease, initial treatment with intravenous glucocorticoids is recommended alone or with orbital radiotherapy, followed by rehabilitative surgery (figure 3).²

Figure 1 Severe eyelid oedema due to Graves' ophthalmopathy (frontal image).

Figure 3 Orbital CT.

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Learning points

- ▶ Severe eyelid oedema due to Graves' orbitopathy is a rare manifestation of Graves' disease.
- ▶ Restoration of euthyroidism with antithyroid drugs is essential.
- ▶ In cases of active and moderate to severe disease, initial treatment with intravenous glucocorticoids is recommended alone or with orbital radiotherapy, followed by rehabilitative surgery.

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Competing interests None.

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