Painful ophthalmoplaegia secondary to orbital myositis

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DESCRIPTION

A 53-year-old man with rheumatoid arthritis presented with 1 week of progressive right-sided proptosis, diplopia and pain on eye movement, particularly when looking to the left. Examination demonstrated marked lid swelling, limited right elevation and dextrolevation with pain on adduction (figure 1A). The affected eye was injected and chemosed. There was no evidence of optic nerve compromise.

The patient was started on intravenous antibiotics for presumed orbital cellulitis. CT scan demonstrated thickening of the right lateral and superior rectus muscles and their tendinous insertions (figure 2). The patient was diagnosed with orbital myositis and treated with 80 mg oral prednisolone. His symptoms improved almost immediately and 24 h later his ophthalmoplaegia and diplopia had resolved (figure 1B). He was discharged on a reducing corticosteroid regime.

Orbital myositis typically presents with painful diplopia. Pain is often worst when looking in the opposite direction to the action of the affected muscles, that is, when the muscle is stretched. It forms part of the idiopathic orbital inflammatory disease spectrum and is associated with systemic inflammatory diseases such as rheumatoid arthritis, sarcoidosis, Crohn's disease, systemic lupus erythematosus and antineutrophil cytoplasmic antibody-associated vasculitis.¹ The aetiology is unknown but recent research suggests an association with IgG4.² Differential diagnoses include orbital cellulitis, orbital neoplasm, carotid-cavernous fistulae, arteriovenous malformations and

Figure 2 Axial section of CT of the head without contrast, demonstrating right lateral rectus thickening and thickening of the tendinous insertion.

thyroid eye disease.³ Since it can mimic orbital cellulitis, intravenous antibiotics are often started empirically; the lack of response may raise the suspicion of an alternative diagnosis. In contrast to orbital cellulitis, there is no fever, and white cell count and inflammatory markers are normal.

CT/MRI is very useful to aid diagnosis.³ Treatment with high-dose corticosteroids usually produces a dramatic response.³ It can recur and refractory cases may require treatment with immunosuppressant drugs or radiotherapy.³

Figure 1 (A) Colour photographs demonstrating the eye in the cardinal positions of gaze. Central image showing the eyes in primary position. There is moderate limitation of right eye dextrolevation and elevation, indicating impairment of the right lateral and superior recti muscles. Note: pain was maximal with eye movement in the opposite direction, that is, depression and laevodepression. There is marked right periorbital oedema, erythema, conjunctival injection and chemosis. (B) Complete resolution of symptoms and signs 1 week following treatment with high-dose oral corticosteroids.

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Learning points

- ▶ Orbital myositis is an important differential for painful ophthalmoplaegia and can mimic orbital cellulitis.
- ▶ Prompt imaging (CT/MRI) is essential to aid in diagnosis and demonstrates thickening of the involved muscles and tendinous insertions, differentiating the condition from thyroid orbitopathy, which usually spares the tendons.
- ▶ Orbital myositis is typically exquisitely responsive to high-dose oral corticosteroids (1 mg/kg prednisolone).

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Contributors JH wrote the first draft of the case report, initially treated the patient and took clinical photographs. TF was the educational supervisor and consultant in charge of the patient's care, oversaw the case report writing and provided help and support, and made a significant contribution to the final draft and figures.

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