BILATERAL POSTERIOR SCLERITIS DUE TO GIANT CELL ARTERITIS

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CASE PRESENTATION

A female aged mid 70's with mild learning difficulty presented to Ophthalmology with an eleven-day history of right followed by left eye pain, redness and blurred vision. She denied any systemic symptoms initially, however on a subsequent consultation with direct enquiry she reported a four-week history of headache, pain in her shoulders, hands and calves. PMH included asthma, hypothyroidism, hearing loss and a hysterectomy.

Ophthalmic examination revealed:

Right	Left
6/24	HM
Mild restriction of downgaze	
Chemosis	Chemosis
Shallow retinal and choroidal detachments (Figure 1a)	Extensive retinal and choroidal detachments (Figure 1b)

Temporal arteries were palpable and not abnormally thickened or tender. Rheumatology review found no synovitis in the hands and normal peripheral arterial pulses. Systemic examination was unremarkable.

DIFFERENTIAL DIAGNOSES

Differential diagnoses included:

- Subretinal mass such as a choroidal melanoma
- Orbital pathology such as tumours, orbital cellulitis or thyroid eye disease
- Causes of exudative retinal detachment e.g. Vogt-Koyanagi-Harada syndrome

INVESTIGATIONS

B-scan of the eyes showed thickened posterior sclerae bilaterally, with fluid surrounding the optic nerve, as well as retinal detachment (Figure 2).

ESR	60 mm/hr	(<35)
CRP	20 mg/dL	(<1)
Creatinine	116 µmol/L	(53 – 97.2)

All other blood tests including a FBC; U&Es; LFTs and complement levels were normal. Paraprotein, ANCA, ANA, rheumatoid factor, anti-CCP, ACE, serum protein electrophoresis, Tb ELISA and syphilis enzyme immunoassay were all also negative.

Urinalysis was negative for blood and protein.

CXR, MRI head and orbits and a PET-CT, to look for evidence of large-vessel vasculitis, were all normal.

DIAGNOSIS

Given the polymyalgic-type symptoms as well as the raised inflammatory markers, she was diagnosed with bilateral posterior scleritis secondary to giant cell arteritis.

TREATMENT

She was started on PO Prednisolone 60mg OD, with gastric and bone protection.

OUTCOME

Her binocular VA improved to 6/12 within 7 days of starting treatment and her ocular and systemic presentation significantly improved (Figure 3).

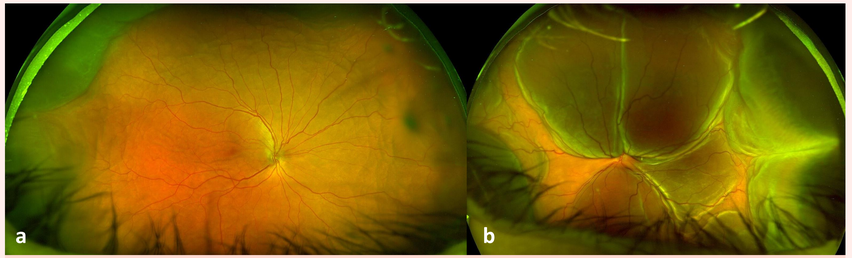


Figure 1. Widefield imaging showing a) shallow retinal and choroidal detachments in the right eye and b) extensive retinal and choroidal detachments in the left eye.

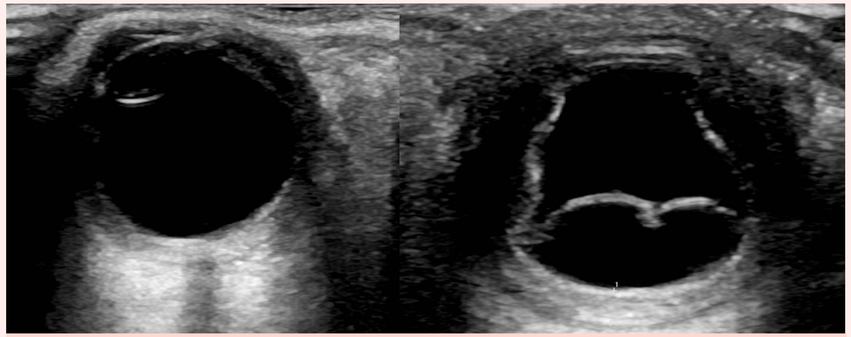


Figure 2. B-scans of both eyes showing thickened posterior sclera, with fluid surrounding the optic nerve, the characteristic 'T' sign of posterior scleritis, as well as retinal detachment.

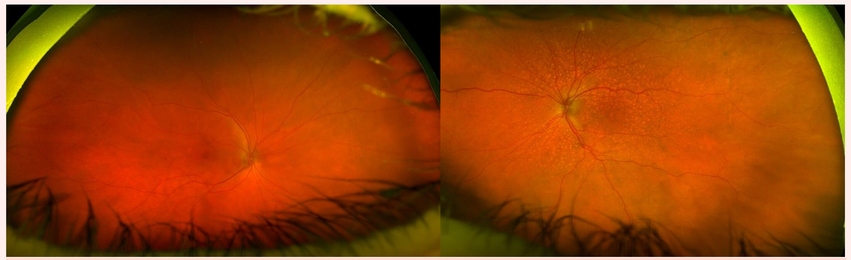


Figure 3. Widefield imaging showing resolving retinal and choroidal detachments in both eyes.

DISCUSSION

The patient was initially seen at GP and A&E, where angle closure glaucoma as well as iritis were rightfully considered. However, symptoms persisted for 11 days before ophthalmic opinion was sought.

30% of posterior scleritis cases have a systemic disease at the time of diagnosis[1,2], the most common associations being rheumatoid arthritis, granulomatosis with polyangiitis and systemic lupus erythematosus. Diagnostic pointers including headache, joint pain and bilateral ocular involvement warranted earlier ophthalmic and rheumatology input.

While investigations did not confirm any of the many associations of posterior scleritis, suspicion for GCA arose due to fulfilment of 3 of the 5 diagnostic criteria for GCA[3]:

- patient age - raised inflammatory markers - headache/shoulder pain

Bilateral posterior scleritis has been previously found to be a rare association of GCA[3-5].

The patient's learning difficulties (LD) posed additional challenges. Despite thorough history-taking by the GP, A&E and ophthalmology, symptoms of headache/shoulder pain were only found at the fourth consultation. LD patients suffer higher rates of ill health, lower rates of screening for preventable diseases, and reduced identification of disease[6]. Studies have shown that 29% of 238 LD patients experienced a delay or difficulty in reaching a diagnosis[7] and 39% of LD patients received less eye care than the general population[8].

RCOphth has published guidance[9] explaining how 'symptoms' that could suggest visual loss in patients with LD are: increased anxiety; hesitancy on steps, pavement edges or poorly lit areas; depression; eye rubbing; reduction in social or domestic skills; and loss of interest in activities. Reasonable adjustments e.g.:

- identification at triage enabling adequate preparation
- the carer being prepared with their PMH and visual function
- communicating with the patient and not their carer
- an early clinic appointment
- minimising waiting

can all make a positive impact on assessment and overall visual outcome.

CONCLUSION

- Posterior scleritis is a potentially blinding condition, with non-specific symptoms and signs, and as a result, diagnosis is commonly delayed.
- Visual prognosis is dependent on duration of symptoms and complications; therefore, early treatment can save sight.
- Obtain a thorough systemic evaluation and do not just focus on the eye when scleritis is suspected.
- When dealing with patients with learning difficulties, expand history-taking to more than just 'symptoms' but also how behaviours may change when they have visual loss and consider making reasonably adjustments during assessment.

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