Reminder of important clinical lesson

Look beyond the red eyes!

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Correspondence to Miss Anupma Kumar, anupmakumar@hotmail.com**Summary**

This is a case of a 63-year-old gentleman who presented with persistent red eyes to the eye clinic for several months. He had been seen in the eye department on several visits when he was noted to have red ears too. This led to further review in the rheumatology and ear, nose and throat clinic to confirm the diagnosis of relapsing polychondritis. He was treated successfully with systemic steroids.

BACKGROUND

This case highlights the importance of considering systemic causes for a red eye. It emphasises the importance of careful history.

We hope by sharing the diagnostic challenge we faced with this case we can raise awareness of systemic associations and red eyes in particular relapsing polychondritis.

CASE PRESENTATION

A 63-year-old gentleman was referred to our department with a painful red right eye for 1 week. He gave no history of discharge, epiphora, photophobia, or visual disturbance. His vision was normal. He had no history of ocular problems and was generally fit and well. He was not on any regular medication with no known allergies. On examination he was found to have diffuse conjunctival injection of the right eye. The remainder of the ocular exam for the right eye was normal and no abnormalities were noted in his left. He was treated for a viral conjunctivitis with mild topical steroids and artificial tears. At a follow-up visit he was noted to have developed involvement of the left eye. Examination revealed normal visual acuities and bilateral follicular conjunctivitis. A diagnosis of bilateral viral conjunctivitis was made and his topical treatment was administered to both eyes. On further review he still had bilateral red eyes. Bacterial and viral conjunctival swab results were negative. By this stage he had persistent red eyes for over 3 months, which were unresponsive to treatment. He underwent bilateral conjunctival biopsies to exclude rare causes of follicular conjunctivitis such as lymphoma. Histology showed bilateral chronic inflammation of the epithelium and subepithelial connective tissue.

At a subsequent visit he still had bilateral red eyes but now he was noted to have a red swollen left ear with normal ear lobe. On direct questioning he gave a 3 month history of red swollen left ear, treated with antibiotics by his general practitioner. The combination of ocular inflammation and swollen red ear (ear lobe sparing) indicated a diagnosis of relapsing polychondritis (RP) as the underlying cause for his red eyes.

INVESTIGATIONS

Baseline blood investigations showed elevated inflammatory markers with an erythrocyte sedimentation rate of 78 and C-reactive protein of 24.

TREATMENT

He was reviewed in the rheumatology and ear, nose and throat clinics that confirm the clinical diagnosis. The patient was treated with systemic corticosteroids.

OUTCOME AND FOLLOW-UP

The patient was treated with systemic corticosteroids, which resolved his symptoms.

DISCUSSION

Red eye is a common ocular disorder with a multitude of possible causes, and this case highlights the importance of 'looking beyond the eyes'.

RP is a rare, episodic, progressive multisystem inflammatory disease characterised by recurrent inflammation of the non-synovial fibrocartilage tissue throughout the body. The original criteria for diagnosis have been modified by Michet *et al.*¹ to include one of the following conditions;

1. Inflammation involving at least two of three sites: auricular, nasal, or laryngotracheal cartilage.
2. Inflammation in either the auricular, nasal, or laryngotracheal cartilages plus two other signs including ocular inflammation, seronegative inflammatory arthritis, vestibular dysfunction, or hearing loss.

Although the exact pathogenesis is unknown several immunological mechanisms may be involved including antibody response to type II collagen.²

Ocular involvement can occur in up to 50% of patients with various clinical findings including episcleritis, scleritis, uveitis and keratitis.¹

The disorder can present with a variety of symptoms confounding early diagnosis.³ Treatment options include corticosteroids, steroid sparing immunosuppressant and a new treatment modality of using monoclonal antibodies against tumour necrosis factor- α .⁴

In summary, this case emphasises the importance of ‘looking beyond the red eyes’ to exclude a systemic disorder, such as relapsing polychondritis.

Learning points

- ▶ Importance of careful systemic history in patients presenting with red eyes.
- ▶ RP is an uncommon condition, which can be difficult to diagnose.
- ▶ Importance of ‘looking beyond the red eyes’ to exclude a systemic disorder such as RP.
- ▶ RP is a rare systemic autoimmune disorder. Ocular involvement (corneoscleral perforation, retinal vasculitis, or optic neuritis) can lead to blindness. Therefore, it is an important for doctors of other departments to understand this disease.

Competing interests None.

Patient consent Not obtained.

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