

Clinical Quiz

A case of red eye

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Gulf Medical Journal presents a case study to serve as a CME activity for clinicians. The scenario depicts a clinical encounter between the practitioner and the patient, and follows the diagnostic and management protocol that is usually adopted. As a means of promoting interactivity, relevant questions will be asked and the reader is expected to think of the appropriate answers. The correct response to the questions, as judged by the author, then appears, followed by some salient points on the condition.

Citation

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A patient presented with a red eye (left) of five days' duration with watery discharge. He was on treatment for conjunctivitis with ciprofloxacin eye drops prescribed by a GP. Since the condition had not improved, he had decided to consult an Ophthalmologist.

This patient had redness of the right eye with slight watery discharge and mild photophobia. The redness had increased and was associated with a slight ache around the eye. The symptoms were not typical, and the details had to be elicited from the patient. Although there was a family history of diabetes, the patient was not aware whether he was diabetic or not.

On examination the best corrected visual acuity



Figure 1. Before eye drops

was 6/6p in the right eye and 6 /9 in the left. Anterior segment examination showed ciliary congestion, keratic precipitates on the corneal

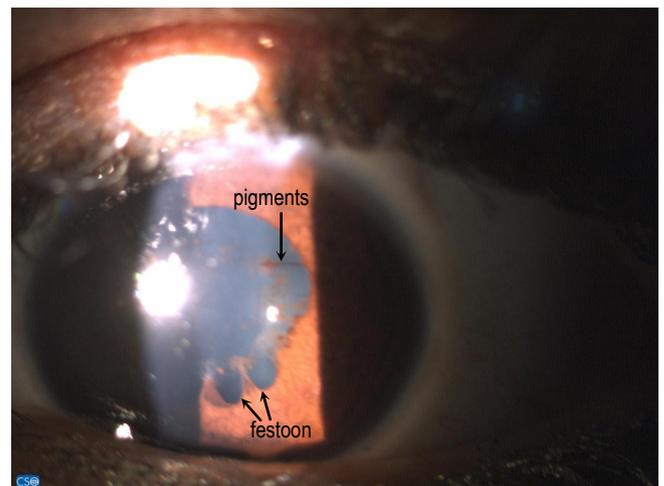


Figure 2. After eye drops

endothelium, cells and flare in the anterior chamber and a small sluggish pupil. As it was difficult to dilate the pupil with cycloplegic drops atropine plus phenylephrine was instilled. The images show the eye before and after instilling eye drops at the clinic.

Question 1

What are the findings in Figure 2?

Question 2

What is the diagnosis?

Question 3

What are the sight-threatening complications of this condition?

Answers on Page 46

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Answer to Question 1

In Figure 2, the pupil has been dilated and it shows posterior synechia inferiorly with festooned appearance, which is partial. Superiorly, the posterior synechia has been broken off by the cycloplegic drops, and iris pigments are seen on the lens capsule.

Posterior synechia is adhesion of the iris to the lens. It can be partial or complete. Partial posterior synechia may include adhesions at a single site or multiple sites. When there are adhesions at multiple sites, dilatation of the pupil causes the non-adherent parts of the pupil to dilate leaving the adherent parts sticking on to the lens. This gives a patchy dilatation with a garland- or wreath-like appearance called the festooned pupil. Similar findings had been reported in studies by Smit^{1,2}.

Answer to Question 2

The diagnosis is anterior uveitis with posterior synechia in the left eye.

Answer to Question 3

Permanent posterior synechia, glaucoma, cataract and cystoid macular edema.

Posterior synechia is adhesion of the iris to the lens. This can lead to cataract and glaucoma. Glaucoma is increased ocular pressure which can occur due to various causes like trabeculitis, peripheral anterior synechia, angle blockage by inflammatory exudate or increased pressure in steroid responders while on treatment with steroids. Cataract is lens opacity occurring due to posterior synechia or due to chronic use of steroids. Cystoid macular edema affects vision and is due to spill over of anterior uveitis into the posterior segment.

DISCUSSION

Red eye is an important public health issue commonly encountered in clinical practice³. All

red eyes with discharge are not conjunctivitis. Due to the association of uveitis with potentially serious systemic disease and when undetected can cause loss of vision, the importance of awareness about this entity to primary care physicians is of public health concern⁴. Taking a proper history is very important and has an essential role to play in the diagnosis. According to the Royal College of Ophthalmologists guidelines, history and examination findings are far more informative than any laboratory investigations and these may prevent the patient from undergoing unnecessary investigations.

Anterior uveitis is inflammation of iris and ciliary body, which can occur due to various causes. In this case the patient was found to be diabetic (PPBS was 383mg%). It is one of the differential diagnoses of a red eye and in the early stages the symptoms will be minimal. Therefore, a high degree of clinical suspicion is required because topical antibiotics have no role in the treatment of anterior uveitis with a normal cornea, and if treatment is delayed the condition can end up in sight-threatening complications. Therefore early diagnosis and appropriate treatment with steroid and cycloplegics can prevent complications. This condition tends to recur in the same or the other eye. Therefore, patient education is important and appropriate investigations need to be undertaken when required.

References

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