



Chronic red eye

Eye series 4

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A 62 year old woman has come to the practice complaining of an irritable, red eye (Figure 1). This has occurred intermittently over a number of years. The condition tends to resolve over a week or so with the help of a series of lid bathes and hot compresses. For mild to moderate episodes she has previously been prescribed Predsol steroid eye drops for which she has responded quickly. The patient feels that the episodes are increasing and the eye is remaining 'gritty' for longer. Vision in the right eye has become poorer than the left eye.



Figure 1. Chronic red eye

Question 1

What ocular conditions could be contributing to this patient's presentation?

Question 2

During the examination the patient tells you that for many years her skin has been dry, flaky and prone to 'hot flushes'. Does this have any diagnostic significance for her ocular disease?

Question 3

What are the common features of rosacea and ocular rosacea?

Question 4

Is acne the same condition as rosacea?

Question 5

Describe the treatment options for this patient's ocular condition.

Question 6

What is the long term prognosis?

Answers

Answer 1

The eye is noticeably red. Red eye can occur as the result of infection or secondary to chronic changes within the eye's environment such as dry eye or allergy. Dysfunction of the meibomian glands will leave the eyelids inflamed along the margins, and commonly a waxy discharge on the eyelash follicle, obstructed meibomian gland cysts (chalazia) or styes may develop. Visual disturbance in this patient could be caused by secondary corneal complications of meibomian dysfunction, however, other ocular pathology such as cataracts or retinal disease need to be considered.

Answer 2

Yes, the presence of accompanying skin dysfunction may be indicative of an underlying cause to the presenting ocular symptoms. Several systemic conditions, such as lupus or rosacea may provide the basis for ocular disease to prosper.

Answer 3

Rosacea is a relatively common, chronic skin condition that causes facial features to become inflamed. Characterised by intermittent facial flushing, rosacea can be triggered by a number of factors, such as alcohol or hot, spicy foods. An excess of blood flowing rapidly through the vessels causes flushing. The blood vessels must enlarge to handle this flow leaving the patient with redness or a blush similar in appearance to that of sunburnt skin. This becomes more noticeable over time. The facial skin may also become very dry. Due to the vessel changes, thin red lines may begin to appear on the face, particularly on the cheeks and nasal areas. These lines are called telangiectasias. Small solid pimples (papules) or pus filled pimples (pustules) can appear on the patient's mid face region. In the severe stages of the disease, small lumps can appear on the nose, which creates a swollen appearance. These changes, more common in men than women, are known as rhinophyma.



Figure 2. Telangiectasias (subtle, enlarged vessels) along the eyelid margin are commonly found in patients with ocular rosacea



Figure 3. Blepharitis

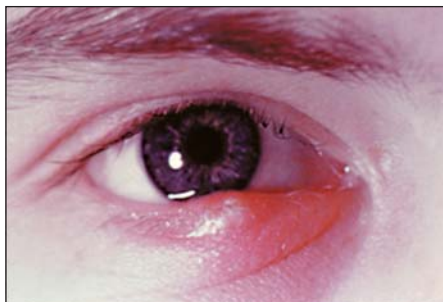


Figure 4. Meibomian gland inspissation ('stye')

In approximately 60% of patients with rosacea, ocular symptoms will occur. These may precede the skin symptoms or follow later. Symptoms can include dry, red, irritable eyes. Recurrent eye and lid infections can leave the eye very sensitive to light. Ocular findings include subtle eyelid telangiectasias (Figure 2), blepharitis (Figure 3), and meibomian gland orifice inspissations (chalazions and 'styes' Figure 4). Conjunctivitis is also common. In moderate to severe cases corneal disease, as a result of continuous inflammation, may also occur leaving the patient with decreased vision. Corneal changes include staph infiltrates, micropannus and corneal scarring.

Answer 4

Rosacea is commonly called acne rosacea. Acne however, is a very different condition and misdiagnosis can lead to inappropriate treatment. Primarily clogged pores and bacterial infections cause acne. Although the origin of rosacea is not known, the con-

dition is caused by the changes to the blood vessels below the skin surface. Papules characterise rosacea while acne is associated more commonly with blackheads and whiteheads. The skin is usually oily in acne while rosacea leaves the skin dry and flaky. Some acne medication, such as topical steroids may actually cause the symptoms to increase in a patient with rosacea.

Answer 5

Treatment is aimed at controlling symptoms and therefore should be tailored to the individual. Blepharitis and the meibomian gland dysfunction should be treated with a combination of warm lid compresses and nonirritating cleaning solutions such as diluted baby shampoo. The lid compress serves to liquefy the meibomian secretions helping to facilitate the expression of the clogging debris. The shampoo will help to further clean the lid regions and remove any accumulated lid scale. Nonpreserved artificial tears help to wash the eye reducing the possible inflammatory agents and to bolster the tear film. Furthermore tears help to alleviate the dry, gritty feeling that many people experience. In more severe cases, long term low dose tetracyclines may be necessary to help resolve symptoms. Due to the nature of the condition doses may need to be used chronically, tapered or discontinued and recommenced when symptoms arise again. Liver enzyme and renal function abnormalities in particular may occur with tetracycline treatment. Topical steroids may prove useful in some cases however, usage should be minimised to prevent potentially damaging ocular side effects with long term use, eg. glaucoma and cataract.

Answer 6

As the condition is chronic the symptoms will increase, particularly if untreated or treated incorrectly. The patient should be fully informed of the nature of the condition to help compliance and follow up care. The patient should be counselled to avoid the trigger factors (eg. alcohol) and environments such as excessive sunlight that lead to

the damaging flushing episodes. Conditions such as hypertension may cause flushing to occur therefore general health should be monitored closely. The patient's medication list should be also reviewed to reduce or avoid any possible aggravating medications.

Vascular laser treatment and plastic surgery remain positive options if the patient is concerned about cosmetic appearances.

Further reading

1. Rebora A. The management of rosacea. *Am J Clin Dermatol* 2002; 3(7):489-496.
2. Tanzi E L, Weinberg J M. The ocular manifestations of rosacea. *Cutis* 2001; 68(2):112-114.
3. Akpek E K, Merchant A, Pinar V, Foster C S. Ocular rosacea: Patient characteristics and follow up. *Ophthalmology* 1997; 104(11):1863-1867.
4. Kligman A M. Ocular rosacea. Current concepts and therapy. *Arch Dermatol* 1997; 133(1):89-90.

Suggested websites

1. National Rosacea Society of America: www.rosacea.org
2. An American internet forum support group with Australian links: www.rosacea.ii.net