Eye Problem/ the painful red eye



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Conjunctivitis



Introduction

This is inflammation of the membrane that lines the eyelids (conjunctiva). It presents with erythema and swelling of the lids and can be acute or chronic. It may be due to:

- <u>allergy</u>: occurring in both eyes; watery discharge, itchiness and rhinitis.
- <u>viral infection</u>: occurring in both eyes; watery discharge, gritty feeling and usually patient also presents with respiratory viral infection (cold)

• <u>bacterial infection</u>: initially presents in one eye but may spread to both eyes; purulent discharge, gritty feeling and not usually associated with other symptoms.

Management

- Allergic: ocular decongestants, topical or systemic antihistamines
- Viral: artificial tears, ocular decongestants
- Bacterial: topical antibacterial preparations

Acute infective conjunctivitis is frequently selflimiting, resolved within 2–5 days when treated with placebo. Gentle cleansing of the affected eye(s) with cotton wool soaked in water can be recommended regardless of whether treatment is also being suggested.

Chloramphenicol eye drops 0.5% every 2 h for the first 24 h and then four times daily or chloramphenicol eye ointment 1% can be used(OTC) for the treatment of acute bacterial conjunctivitis in adults and children aged 2 years or over.

• People with infective conjunctivitis or those treating someone who is infected should wash their hands regularly and avoid sharing towels and pillows.

• Contact lenses should not be worn until the infection has completely cleared and until 24 h after any treatment has been completed.

Medical advice (referral) is urgently needed if the eye(s):

- become markedly painful,
- photophobia,
- marked redness or vision is affected.
- if symptoms persist for longer than 2 weeks further investigation is needed.

External stye is an infection of the sebaceous glands at the base of the eyelashes. Styes are most commonly caused by the blocking of an oil gland at the base of the eyelash. It can be external styes and internal styes. Although styes are harmless in most cases and complications are very rare, styes often recur. They do not cause intraocular damage.





- Styes normally heal on their own by rupturing within a few days to a week, but if it does not improve or it worsens within two weeks, refferal to a doctor's should be sought.
- As a part of self-care at home, patients may cleans the affected eyelid with tap water or with a mild, nonirritating soap or shampoo (such as baby shampoo) to help clean crusted discharge. Cleansing must be done gently and while the eyes are closed to prevent eye injuries

Glaucoma

Glaucoma is the elevation of intraocular pressure of the eye that may cause the damage to the structure or the function of the eye. The condition is classified into acute glaucoma (closed angle) and chronic glaucoma (open angle).

Acute glaucoma (closed angle):

- sudden onset of pain
- blurred vision
- dilated pupil
- if untreated can lead to blindness
- pain in and around eye
- nausea and vomiting.

Chronic glaucoma (open angle):

- more common
- slow onset with loss of peripheral vision
- blurring
- halos around lights
- headaches
- feeling of fullness around eyes.

Contact lenses

- Hard lenses made of Perspex
- Soft hydrogel lenses
- Disposable lenses.



Disadvantages

- Not suitable for people with allergies
- Manual skill required
- Tolerance may be reduced during pregnancy
- Diabetics and immunocompromised patients are at greater risk of developing eye infections.

Cleaning solutions

• Used for daily cleaning to remove fresh deposits

Rinsing and disinfection solutions

- Rinsing: sterile saline solution
- Disinfectants: contain hydrogen peroxide.
- Lenses should be rinsed before insertion into the eye.

Multi-purpose solutions

- present the steps of rinsing, disinfection and storing in one product.
- These solutions are preferred.

Complications related to contact lens wear

Most complications are self-limiting if the lens is removed at the first sign of trouble. Complications could be as a result of:

- poor lens care
- inadequate hygiene
- overwear
- poor fitting.

Problems occur more in hot, dry environments.

Effects of systemic medications on contact lens use

- Reduced tolerance due to <u>oral contraceptives</u>: oestrogen component causes eyelid oedema, allergic conjunctivitis
- <u>Atropine</u>, <u>antimuscarinics</u>, <u>beta-blockers</u>, <u>TCAs</u>: decrease tear volume
- <u>Aspirin</u>: appears in tears and may be absorbed by soft lenses resulting in ocular irritation and redness.

Effects of topical medications on contact lens use

- May damage contact lens and increase contact time of the drug
- Eye drops should be administered 30 minutes before inserting lens.

Case study

K. C is a mum in her late thirties who wants advice about a problem with her daughter's eyes. Both of E.j eyes were sticky in the morning with 'yellow stuff' yesterday and today. The child is 18 months old and her eyes seem to be bothering her because she has been rubbing them.

Case study

Pharmacist's view

I couldn't recommend chloramphenicol for this child because she's <u>under 2 years</u>. I'm not convinced that it offers any benefit in infective conjunctivitis in children. So I explained to K.C that if she gently bathed the eyes to keep them clean over the next few days it was likely that the infection would go by itself. She wanted to get some treatment, so I referred her to the GP.

The doctor's view

I agree with the pharmacist's opinion. The available evidence suggests that there is no advantage in prescribing chloramphenicol eye drops compared to placebo drops even in those who are subsequently shown to have bacterial infections on laboratory testing. In other words, most infections resolve spontaneously.

The parent's view

I wasn't happy with the pharmacist. I come here a lot for advice and usually he's really good. But this time he told me that the infection would probably go away by itself without treatment. And in any case he said he couldn't sell me anything and I would have to take E.J to the doctor. I was worried that the infection might get worse or even damage E.J's eyesight for the future.

How to apply eye ointment



