special test to identify corneal ulcers: a fluorescein strip is placed just inside the lower eyelid and this will stain and outline any break in the epithelium a green colour. See page 79 for how to do this.

Management

Corneal ulcer is a serious eye problem. Frequent (hourly) antibiotic eye drops should be instilled, an eye pad applied, and the patient referred for help urgently. If the patient is aged one to ten years, Vitamin A 200,000 IU should also be given orally. All corneal ulcers should be managed by an eye specialist as they can easily lead to corneal scarring and blindness.

The specialist will diagnose the cause and manage appropriately. Bacterial ulcers are treated with topical and sub-conjunctival antibiotics. Fungal ulcers are treated with antifungals e.g. natamycin, but are difficult to treat. Viral ulcers are treated with anti-virals e.g. acyclovir. Nutritional ulcers are usually due to Vitamin A deficiency following measles or malnutrition. Treatment involves giving Vitamin A capsules according to age.

Acute iritis

Acute iritis is often of unknown cause. The patient will complain of a red painful eye. There is no discharge but the visual acuity is reduced. The conjunctiva is red but the cornea is clear. The pupil is usually small and may be irregular in shape – this is more obvious as the pupil dilates with treatment.

Management

This is a serious problem. If you can dilate the pupil with a short-acting mydriatic, such as tropicamide, this should be done and refer the patient quickly for help.

Acute glaucoma

This disease is uncommon in people of African origin but more common in people from Asia. In acute glaucoma, the pressure in the eye goes up very quickly. This causes a red very painful eye, with poor visual acuity. The cornea is hazy due to oedema and the pupil is large and does not become small when a bright light is shone into the eye.

Management

This is a very serious and painful disease. The patient must be referred for help immediately. If you have diamox tablets (250 mg each), give two tablets by mouth and one tablet four times a day and refer the patient. Pilocarpine eye drops can be given (if available) to make the pupil small.

Traditional eye medicine

Traditional medicine is as old as man himself. Traditional healers are highly respected members of each community. Many patients who present at an eye clinic in Africa would have had some form of herbs or concoctions applied in his/her eyes before coming to us. This is especially dangerous in children.

Traditional eye treatments can be classified as harmful or harmless. Harmless eye treatments include incantations by traditional healers and use of salt solution, to name a few. Examples of harmful eye medicines include alcohol, ground cowries, donkey and cow dung, herbal preparations, human sputum, bird and lizard faeces, urine, etc. Eye care workers around the world would probably be able to add to this list from their own experience, and these concoctions differ from one culture to another. The preparations put into the eye can cause corneal ulcers or worsen existing ones and end up as scars or eye perforations leading to blindness.

The primary eye worker has an important role to play in preventing blindness from the use of traditional eye treatments. They are often the first point of contact when something goes wrong with the treatment, and they are also close enough to the community to discourage their use. The first step to preventing blindness from traditional eye medicines is to establish trust and respect between health care providers and patients and communities.

It is important to understand the reasons why people use traditional eye treatments, and not to judge them. There is widespread ignorance about the dangers of self-treatment for eye conditions. Many poor patients are put off seeking help from health clinics because of the negative attitudes of some health workers. Socio-cultural beliefs in evil spirits and witchcraft may lead people to think that the best course of action is with spiritual rather than medical healers; for many patients, prescribed eye medicines are considered very expensive. Furthermore, the distance to health facilities result in patients taking help from the nearest source.

Management

Most patients tend to come to hospital when the eye is already damaged. Treatment is with water irrigation, if the traditional medicine was recently applied, and then topical hourly antibiotic eye drops.

Every opportunity should be used to educate people and discourage the use of traditional eye medicine, for example, health education in communities, schools, women's groups and clinics. Refer all patients with eye complications.

Injury (or trauma)

Traumatic injuries form about 10% of all red eyes. These injuries may cause irreversible damage to the eye leading to blindness. Many of these would need immediate referral to a secondary or tertiary eye care facility. First aid management of red eye with injury at the primary level will be covered in a future issue of the journal, and so is not included here.

Sources

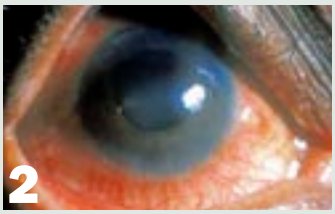
Sutter E, Foster A, and Francis V. Hanyane: A village struggles for eye health, Part 2: Common eye diseases for village health workers. Part 3: Lecture notes on common eye diseases for ophthalmic assistants. London: International Centre for Eye Health. 1989.

Red Eye Picture Quiz

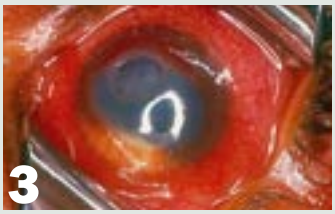
What is wrong with these eyes? What is the management?

Quiz by David Yorston and Marcia Zondervan

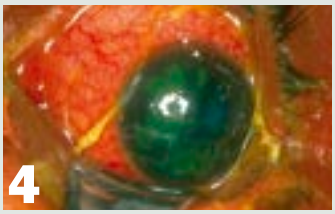
A 14-year-old boy. Complains of itching eyes for three years with sticky clear discharge. VA 6/6.



45-year-old female. Complains of painful eye and discomfort in bright light with watery discharge. VA 6/12.

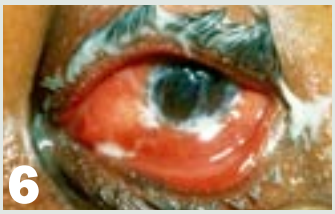


Five-year-old girl. Severe pain and loss of vision for three days. Used traditional eye medicines one week ago. VA CF.



Six-year-old male. Painful eye for ten days. Had malaria one month ago. Corneal sensation reduced when tested. VA 6/60.

25-year-old woman. No pain or discharge. Complained of red eye since this morning. VA 6/6.



19-year-old male. Complains of gritty foreign body sensation, painful eye for three days with sticky yellowish discharge. VA 6/9.

Answers on page 78