ABC of Ophthalmology

P A GARDINER

COMMON OR DIFFICULT DIAGNOSES

Herpes ophthalmicus

Herpes ophthalmicus (shingles) is caused by the same virus as chickenpox and may be acquired by chickenpox contacts. It is often misdiagnosed in its early stages and mismanaged in its later stages.

The first symptoms are numbness and tingling around the eye, followed in hours or days by redness and swelling of the lids. This swelling often prevents the opening of the lids, and the examiner might have great difficulty in separating them. These developments may be confused with an allergy. Pain and tenderness are usually severe.

The possibility of shingles may be rejected mistakenly because the disease seems to be spreading across the nose to the other eye, which is theoretically impossible for a process confined to the distribution of the fifth nerve. This is, however, never a true extension—merely a spread of oedema. A more common early complication is swelling and congestion of the conjunctiva. The oedema begins to resolve after a few days and the eye begins to open. The formation of skin vesicles may be early and gross or late and minimal.

On about the 10th to 14th day a quiet intraocular inflammation may begin, and the mild decrease in visual acuity that accompanies it is too often attributed to the violent storm that has occurred externally. If this inflammation is ignored serious complications and permanent visual handicap may result. The safest course is for all patients with shingles to have an ophthalmological opinion within a month of the first symptoms if they do not have completely normal near and distant vision. Acuity should, if possible, be tested at all stages.

The cornea often becomes anaesthetic: and keratitis is then a possibility; this may be potentially damaging to vision. Anaesthesia is not easy to determine when the lids are so swollen that the eye cannot be seen. But it should be tested by a wisp of cotton wool as soon as possible. If anaesthesia is present an ophthalmologist's opinion is needed within days.

Systemic analgesics may be helpful, but in all cases treatment of the conjunctiva with an antibiotic ointment will prevent secondary infection. Dusting powders help to dry out skin lesions. But the aftermath that afflicts so many patients is an intractable and often untreatable neuralgia. In some cases the cornea remains permanently anaesthetised, and this may warrant permanent protection against the elements or trauma; glasses with side shields are usually adequate.

Complications

Anaesthetic cornea

Intractable neuralgia

Conjunctivitis

Conjunctivitis in its common form is of infective origin and characterised by discharge as well as redness. Epidemics, though statistically recognisable, are of no great importance in temperate climates; in the tropics trachoma and ophthalmia neonatorum are still major causes of blindness. Normal hygiene is sufficient in the home without taking alarmist precautions against the spread of infection. Sensitivity to light is a common feature but it is no indication of severity or the presence of complications unless acuity is affected. Dark glasses may ease the discomfort, but on no account should the eye be covered.

If treatment is properly ordered and carried out most cases of infective conjunctivitis will improve within a few days and will have resolved completely in two weeks. Saline irrigations are helpful when discharge accumulates; and chloramphenicol drops every two to four hours, together with chloramphenicol ointment at night, will overcome the common organisms.

If symptoms persist longer than two weeks, particularly if the onset of conjunctivitis was associated with evidence of a systemic viral disease such as influenza, there is a danger that some viral form of corneal damage is present. This is potentially far more dangerous than the conjunctivitis. There may be no more than minor redness but lacrimation is usually excessive. The damage can be detected by staining the cornea with fluorescein; under magnification the damaged area will appear coloured green.

In the early stages these herpetiform ulcers can usually be dealt with by outpatient treatment but they may become chronic and resistant later. Also the corneal opacification that results may cause some permanent visual loss.

Treatment includes firm padding and administration of idoxuridine drops 0.1% every hour with idoxuridine ointment every four hours. If no improvement occurs after 10 days of such treatment further advice should be sought. High doses of ascorbic acid for a few days encourage healing in many corneal conditions. In all cases of conjunctivitis steroid treatment is contraindicated.

Allergies

Many minor complaints which never impair vision are distressing and handicapping. True allergies include the irritable watering eye usually associated with catarrhal symptoms caused by pollen or other components of dust. Seasonal "hay fever" is the commonest form. Endogenous causes of this type of allergy are seldom found, but both endogenous and exogenous causes may produce the other common allergic dermatitis of the lids that shows itself not only by swelling of the lids but often of the conjunctiva too. Many of these patients suffer from the treatment given in an attempt to clear up the "conjunctivitis" that is thought to be the cause. People may be allergic to the antibiotic used or to the vehicle in which it is carried.

This is particularly so with ointments, where the base may be the agent. Some people, however, are allergic to the preservative in eye drops. Attempts to clear the condition by local treatment may be self-defeating. Stopping local treatment will then bring rapid relief, but the patient should be warned of the cause of the trouble as the susceptibility is longstanding.

Cosmetics and other chemicals, including detergents, may all cause allergic reactions. The eye reactions may be part of a more widespread allergic dermatitis. In all cases systemic antihistamine treatment is likely to bring relief.

Lids: cysts, styes, and crusting

Cysts, styes, and crusting of the lid margins (blepharitis) are common. None are caused by using the eyes, but cysts on the upper lid may cause temporary visual defects. Cysts that do not resolve spontaneously need incision and dissecting out. Complications are virtually unknown. Any incapacity seldom lasts more than overnight.

Prolonged infective blepharitis in the days before antibiotics caused lid deformities and sometimes severe visual handicap from corneal damage and secondary infection. Local antibiotics usually control secondary infection. The underlying cause of blepharitis may be dandruff, which should also be treated. Congestion of the lid margins is often the precursor of blepharitis; it usually responds to hydrocortisone ointment, if only temporarily.

Styes (infections of the lash follicle) are no different from hair follicle infections elsewhere and have no relation to visual difficulties or any special significance in a healthy person. Most resolve spontaneously but this may be hastened by bathing with hot water, and removing a lash will sometimes encourage the abscess to drain. Systemic antibiotics should usually be avoided.

Recurrence, as in other parts of the body, may indicate a general lack of resistance, and treatment needs to be general rather than merely local.

The lids are also a favourite site for a rodent ulcer (basal cell carcinoma). Confirmation by microscopy is desirable. Any recurrent ulceration or induration of the skin should be excised or irradiated in its early stages, since delay may lead at best to more extensive surgery and at worst to such widespread and local extension that the ocular tissues are threatened.

Lids: turning in or out

The lids may lose their ability to remain in contact with the globe. This usually happens to the lower lid as a result of injury or because of the degenerative changes of old age. The result is lacrimation and secondary infection. This may be potentially dangerous should the eye become diseased or need surgery for some other condition. Treatment should therefore be considered for what may appear to be a fairly trivial complaint.

If the lid falls away from the globe (ectropion) even to a minor extent watering will occur. Provided lacrimal drainage is intact this can be cured by simple plastic surgery as an outpatient.

When the lids turn in (entropion), the lashes scrape the globe. This often does not cause as much pain as might be expected, sometimes none at all, but the scraping can damage the cornea, threatening sight. Again simple plastic surgery is required. Turning in of the lid is often intermittent and may be missed.

Cosmetic degeneration

Those who are anxious about their appearance are often worried by what seem to be blisters or follicles or fatty deposits on the globe in the horizontal meridian (pinguecula). These are degenerative changes that have no pathological importance. Excision is seldom justified and not always successful in improving the appearance.

These should not be confused with the more serious slow-growing infiltration of the cornea (pterygium), starting from the point where it joins the sclera. In the UK it occurs only in people who have spent long periods overseas. In a few cases it may present a threat to sight. The infiltration may halt or it may take years to become serious. It needs removal for visual reasons only when it shows steady encroachment on to the cornea. Palliative treatment is useless and expert advice is needed once progression is observed.

The skin at the inner end of each lid is sometimes disfigured by fatty changes (xanthelamata). These are self-limiting, but often need excision for cosmetic reasons. They sometimes recur, though in people with raised blood cholesterol reducing the concentration may help. In the early stages this measure alone may cause slow spontaneous resolution.

Age is often accompanied by the appearance of a white ring around the edge of the cornea (arcus senilis). This is so common as to be physiological and never presents any threat to sight.

The photographs of herpes ophthalmicus, herpetic ulcer, allergic dermatitis, cyst, blepharitis, stye, pinguecula, and pterygium were reproduced by permission of the Institute of Ophthalmology.