EVALUATING COMMON SIGNS AND SYMPTOMS

Visual symptoms always more serious

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In terms of function visual symptoms are always potentially graver than the non-visual ones, though to the patient discomfort in the eyes or noticeable redness may seem more serious.

Blurring

The commonest visual symptom is “blurring,” which covers many meanings. To determine the importance of the blurring, the doctor must inquire whether it is equal in each eye or confined to one; constant or episodic; for near or distant vision, or both; of sudden onset; and whether it has changed since it was first noticed, and, if so, for better or worse. If the visual acuity can be established the severity of the disturbance will become much clearer.

Blurring in only one eye is much more likely to be ocular in origin than in both, especially if it is of sudden onset.

If the blurring has occurred gradually over months in both eyes in an otherwise healthy person, then the most likely cause is a change of refraction. In the elderly it may also be due to lens opacities if the blurring affects mainly distance vision, or to retinal circulatory disturbance if it affects mainly near vision.

A test with a card pierced by a pinhole will show whether or not the blurring is caused by refractive changes. If these are the cause then the visual acuity will improve when the patient looks out through the pinhole, placed close to his eye. This test will determine whether or not glasses are likely to solve the problem and therefore the person to refer the patient to.

If the blurring of sudden onset—in weeks or days—in only one eye then it is certainly not refractive. Even so, a complaint of sudden onset may mean only that a long-standing defect has just been noticed. It is safest to assume, however, that the event is potentially serious and urgent unless it suddenly recovers. If it does recover and the person is healthy then waiting for a further attack before referring the patient to an ophthalmologist is justifiable.

If the blurring steadily gets worse day by day or week by week—even if it is only by minor stages—then the position is correspondingly urgent.
Episodic blurring (apart from that caused by changes in the light) is never due to a refractive error. If it occurs more than once a week in an adult over 35 there is a definite possibility of glaucoma, especially if it is uniocular and more than momentary. Multiple sclerosis is one of many causes of uniocular blurring lasting days or more.

Migranous episodes usually affect both eyes and occur for the first time in younger people. More rarely the episode of blurring may be caused by carotid insufficiency or its variants, and this is usually described as a shutter or blind effect.

Diplopia

Double vision needs to be confirmed, as many patients confuse blurring or overlapping with double vision. True double vision means two separate objects—side by side or one above the other. There are three common causes of double vision in adults.

Firstly, paralysis or weakness may affect one or more of the extraocular muscles. The paralysis may be caused by trauma; local or intracerebral vascular lesions; idiopathic neuropathy, usually but not always associated with systemic conditions; multiple sclerosis; thyroid disease; myasthenia gravis; and diabetes. In all these conditions double vision may be the presenting symptom, and a tentative diagnosis may often be made by looking for the appropriate signs elsewhere.

Secondly, the eyes may intermittently fail to co-ordinate. This is a classic indication for orthoptic advice, possibly leading to the prescription of glasses or surgery. Young children will rarely complain and soon learn to suppress one image. In older people intermittent double vision might occur when they are under stress or sedation. Exercises may be needed to restore full function. Sometimes prismatic lenses solve the problem.

Thirdly, the angle of a long-standing squint may change. This is one of the difficulties of treating squints in adults. Squints should be treated in early life, when unwanted images can be suppressed.

Floaters and blurred spots

Perhaps the most common complaint after blurring is of spots floating about in front of the eyes. They may be one of the first signs of failing vision, especially in people with myopia, arteriosclerosis, or diabetes.

Floaters usually appear for the first time or are noticed for the first time when people are suffering from extreme fatigue or debility. The week or two after their onset is the critical time. If no further developments occur during this time, no serious changes are likely to occur if the visual acuity remains as good as it was. Any sudden change in acuity or in visual field in a short-sighted person may indicate a detached retina, especially if the spots are associated with seeing sparks or stars. The outlook in retinal detachment is improved greatly if the patient is treated immediately by an ophthalmologist. Floaters are more easily seen by the patient against a white background.

Circulatory disturbances in the retina may also cause bouts of seeing stars or flashes, particularly in the temporal field at times of fatigue or stress. These seldom forecast visual changes in the elderly if they are unaccompanied by floaters, and it is safe to await developments for a while in people with known arteriosclerosis or hypertension if acuity is unaffected.
Floaters must be distinguished from the much rarer solitary area of blurring that does not float but moves with the eye without any time lag. This may be described as a piece missing from an object or a blurred spot and it tends to be constantly present. They are more serious than the common floater because they are often progressive or indicative of some other disorder, such as retinal disorders and neurological and cerebral conditions.

**Measuring acuity as a guide to urgency**

The actual measurement of visual acuity is the surest guide to changes that need investigation soon and those that can wait. The recorded loss of one line on the standard sight testing chart is sufficient warning if of recent onset.

The family history should influence the interpretation of these symptoms. But the patient is also guided by the family history and may jump to conclusions and either produce a symptom to fit a traditional history or suppress the history through fear.

The possibility that some of these purely visual symptoms may be the presenting symptoms of systemic disease must not be overlooked. Anaemia, for example, may present with only visual symptoms, the cause of which lies entirely outside the eye, and there are many others.

**Pain**

Visual disturbance with pain in the eyes is always serious, and advice is urgently needed. Such conditions include iritis, glaucoma, multiple sclerosis, shingles (in which pain predominates late in the disease and disfigurement and swelling in the early stages), cranial arteritis, and sometimes hysteria.

A painful eye may also cause pain in the eye—that is, somewhere inside the lids—as may more serious trauma, though this tends to be associated also with redness and watering.

A painful white eye with no visual symptoms is more likely to have a neurological basis than an ophthalmological one—for example, trigeminal neuralgia.

**Soreness**

Symptoms of grittiness, and hotness are common in middle age, but little is understood about how these are caused in the absence of visual disturbance. Nobody with an uncomfortable eye is going to lose their sight for that reason alone. These symptoms tend to be more common in women than in men and are almost always bilateral.

Some people who suffer sore or irritable eyes are the victims of an allergy—or sometimes to an eye ointment. But one of the commonest causes of soreness and grittiness without visual symptoms is subclinical diminution in lacrimation. This is extremely common in people with arthritis, and will be aggravated in hot dry atmospheres.

Artificial tear drops often help more than over-the-counter eye lotions. If these fail and no other cause is found for the soreness, the patient may at least be assured that it is not a sign of approaching visual failure. Refractive disorders are seldom relevant.
Lacrimation

Lacrimation in a white painless eye is commonly found in infants and in the middle-aged and elderly. If it is unaccompanied by discharge it has no importance but may be intractable. In infants lacrimation tends to clear by 9 months because it is caused by delayed canalisation of the nasolacrimal duct. Since treatment necessitates a general anaesthetic and mechanical probing of the duct, delay while nature does its work is the better course. Watering alone has no implications for sight. Watering accompanied by discharge requires treatment with chloramphenicol ointment or drops, and if the discharge is resistant referral is indicated after two or three weeks.

In middle age, on the other hand, delay of months in probing or syringing often makes reconstructive surgery of the duct necessary. Delay may also lead to abscess formation, though this is less common now that antibiotic treatment is available.

If the lacrimal duct is patent lacrimation is commonly caused by loss of tone in the eyelids, or spasms of the lower lid leading to eversion or inversion, particularly in the elderly. This is simply remedied by minor outpatient surgery. Once again, a fine ingrowing eyelash may be a single cause.

In younger people (particularly students) excessive watering might be caused by the eyes’ inability to converge without effort. The patient usually describes it as watering when he is reading or trying to read. It has nothing to do with refraction and the remedy is in the hands of the orthoptist. Lacrimation accompanied by pain or photophobia, on the other hand, may indicate corneal disease and is more serious (see below).

Headache

It is part of medical folklore that the eyes play an important part in producing headaches. An “eye check” is often therefore one of the first eliminating rounds in making a diagnosis.

Headaches that are not associated with visual symptoms or use of the eyes do not primarily need visual treatment or investigation: the cause of the headache must be sought elsewhere.

Even in people with headache and visual symptoms, ophthalmic treatment is not always indicated—for example, in migraine. The medical history should give a clue but a common error is to mistake the jazzy coloured aura of migraine for the rainbow seen by patients with glaucoma. The fact that glaucoma is rare before the age of 40 should help diagnosis in younger people. The migrainous spectrum is a spontaneous, jagged, firework-like phenomenon rather than the steady coloured illusion produced by a light source that is typical of glaucoma.

The glaucomatous headache usually occurs only while the blurring of vision is present, and it is seldom severe: it is often also accompanied by aching of the eye. In neither case is an eye test the sensible step. Patients with migraine need a physician and those with glaucoma an ophthalmologist.

Neither of these headaches need instantaneous treatment, but the headache of cranial arteritis does, as it may cause blindness in 24 hours. The headaches of arteritis always occur in the elderly; they are severe and often diffuse. Temporal tenderness is only one manifestation. They are usually severe enough to be troublesome at night and hinder sleep.

In all these conditions the retina and optic nerve may appear normal.

Headaches of visual origin are extremely rare in children aged under 10. They are also rarely caused by refractive disorders in children.
Giddiness and nystagmus

Giddiness, though sometimes associated with abnormal eye movements is seldom caused by a primary ocular disorder. Uncertain orientation may, however, be caused by sudden loss of sight in one eye, sudden loss of visual field (usually in cerebrovascular disease), or by variable diplopia of recent onset badly described. The cause is often neurological—for example, multiple sclerosis.

Whenever dizziness is reported information on eye movement is very useful because double vision might be confused with giddiness.

In congenital nystagmus the symptoms will be those of a well-tolerated defect. Visual acuity is always affected more for distance than for near sight, though a change in head posture may enable normal acuity to be obtained. After the age of 3 the defect usually becomes static, hence the toleration. The underlying cause is not understood but developmental ocular anomalies are common and often causal—for example, albinism—colobomata.

In acquired nystagmus giddiness may be the predominant complaint, though it may be noticed only under certain conditions. Whether the giddiness causes the nystagmus or vice versa depends on where the disturbance originates.

Acquired nystagmus elicited with or without accompanying symptoms is likely to be of urgent importance. Among possible causes are cerebral tumours, multiple sclerosis, and disorders of ear or labyrinth.

Red eye: acuity important than colour

A red eye is not necessarily more serious than a white one. Once again it is the visual acuity that matters, but red eyes are not cured by correct refraction.

If any visual disturbance, however slight, accompanies the redness, a firm diagnosis is needed from an ophthalmologist within days, unless the eye and its acuity steadily improves.

The depth and extent of the discoloration are no guide to the severity of the condition. A spontaneous subconjunctival haemorrhage that totally obliterates the white sclera, is, in the absence of trauma, harmless and carries no complications. It will resolve on its own without treatment. On the other hand, redness in one eye that is hardly noticeable may signal intraocular disease and a potential threat to sight. Most of the serious causes of red eye do not affect both eyes at once, so unilocal redness is generally more a of danger signal than binocular redness.

For example, true infective conjunctivitis is usually binocular and not usually a serious disease in Western countries. The fact that there is always some discharge in conjunctivitis (which might be so slight that it only makes it hard to separate the lids on waking) distinguishes the condition from other causes of red eye. Treatment of a discharging eye can be safely left to local antibiotics for a week or so, but failure to respond in this time may well indicate corneal complications, especially if the patient has been suffering from a systemic or local virus disease. Permanent visual loss is a real possibility in such cases. Staining with fluorescein will show this under magnification.

The practice of covering red eyes is fortunately dying out, since covering an infected eye incubates the organism, hinders recovery, and may spread the infection.

The conjunctivitis and other signs of ocular irritability that accompany measles have no special significance.

It is important to distinguish infective or viral conjunctivitis from other forms of red eye because steroid treatment is contraindicated in conjunctivitis.

Any of these symptoms occurring in a person with only one useful eye warrant a completely different scale of urgency about referral than if they occur in one of a pair.

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