

SEASONS GREETINGS

This issue takes a look at some of the strange and wonderful 'eye' conditions that patients just might present over the summer holidays.

SUDDEN REFRACTIVE CHANGE IN ACUTE ONSET OF DIABETES

Last summer a Christchurch optometrist was presented with two cases of sudden onset myopic shift caused by excessive intake of sweetened drinks in patients with previously undiagnosed impaired glucose tolerance. The sugar loading from repeatedly quenching thirst with sugar sweetened fizzy drinks and energy drinks caused temporary myopia. Both patients had previously normal vision, and experienced a very sudden myopic refractive shift. The common factor was that both patients quenched their thirst with readily available sweetened drinks. Impaired insulin availability was unable to cope with the sudden demand, and blood sugar levels were measured at five times normal. Appropriate medical treatment, including medication, dietary advice and control, and exercise have controlled the diabetes and markedly improved the health problems of both patients. Watch out for a rapid loss of distant acuity while retaining good near vision in patients with reduced glucose tolerance.

SEEING DOUBLE AFTER A COUPLE OF DRINKS

The nervous control of the extra ocular muscles, like all the body's muscular systems, is affected by the ethanol. Each eye has six extra ocular muscles to provide for eye movements, versions (where the eyes move together as a pair, in the same direction, left or right, up or down) and vergences (when they do not make the same movement as each other, eg convergence, when both eyes turn in).

Anatomically the eyes are set in the head at 90° to each other, and the two medial recti turn them in for primary gaze (straight ahead). Cover the eyes or shut them, and they usually turn out.

Add some ethanol, and the usual control of the extra ocular muscles goes, and the medial recti contract even more, so the eyes are misaligned and the person sees double.

It does not happen in everyone, and it is an indication that the person is way over the limit!! So if your patient can't decide which of the two cans to pick up, hopefully he won't be needing to consider which keyhole to put which key in, to start which car to drive down which road.

IMPACT OF DOMESTIC VIOLENCE

Christmas always increases the incidence of domestic violence. In Optometry, we do not see the direct effects of this unfortunate phenomenon, but as GPs, you may see consequences that trauma to the eyes and the head may well have on eyes and the visual system.

Blunt Trauma may lead to:

- Internal haemorrhages including vitreal retinal and sub-retinal haemorrhages and hyphaema
- External haemorrhages such as sub-conjunctival haemorrhages
- retinal damage including detachments, holes and tears
- choroidal damage, especially at the iris and ciliary muscle
- lenticular problems such as a subluxated lens or traumatic cataract
- damage to the pupil affecting pupil reflexes and vision quality
- blow-out fractures of the ethmoid bone causing restricted movement of the eye
- corneal damage

Secondary concerns would include glaucoma, cataract, cellulitis, ocular motility problems and vision changes, both refractive changes and oculomotor.

Head injuries could lead to concussion, blurred vision, visual field defects, and cranial nerve damage.

Sharp objects may damage the eyelids, cause corneal abrasions, or even penetrating injuries with all their potential complications. Foreign bodies on the eye will also possibly occur.

Happy thoughts for a festive occasion!

"Optometrists will assist your diagnosis by providing a comprehensive eye examination for your patient."

Reception and nursing staff are a critical part of the team. They must have a good understanding of vision and the symptoms associated with serious eye pathology to ensure that the real emergencies are seen immediately - tomorrow may be too late for good visual recovery.





SUDDEN LOSS OF VISION IS AN EMERGENCY!

Check for onset. Is it one eye or both eyes, was it a total loss ("the vision is black"), sectorial loss ("part of my vision has gone grey"), or just an unexpected and sudden reduction in the acuity? Possible diagnoses, with brief clinical signs are:

- **Retinal arterial occlusion** – little or no vision in one eye, Marcus Gunn pupil, whitish retina, marked narrowing of the retinal arterioles.
- **Retinal vein occlusion** – a relatively common rapid loss of vision in one eye. Presentation is usually with a relative loss of part of the visual field and reduced visual acuity.
- **Anterior ischaemic optic neuropathy / temporal arteritis** is typically unioocular, with sudden and profound loss of vision. It may be preceded by transient flashing lights and vision loss, and is accompanied by pain and sensitivity to pressure in the adjacent temple.
- **Retinal detachment** – flashing lights and floaters, wavy grey vision, loss of vision usually towards the periphery must be considered symptomatic of RD. Early diagnosis will ensure the best result from surgery.
- **Acute glaucoma** – acute angle closure glaucoma presents as a painful, red eye, with the pain radiating towards the jaw, and the conjunctival and limbal vessels markedly injected. There is likely to be a history of transient blurring of vision, halos around lights and some eye ache particularly at night.
- **Amaurosis fugax (TIA)** – temporary loss of vision indicative of vascular disease must be differentiated from migraine. If the visual loss lasts for more than 2 hours, suspect TIA; if it lasts less than 30 minutes and is associated with headache, and nausea, it is probably migraine.

A MEMORABLE PATIENT

Taken from British Medical Journal – Vol 317, pp 1437


As a haematologist, I am often asked to evaluate patients for a possible bleeding disorder. A secretary in her mid 20s, had noticed the appearance of spontaneous bruises on her limbs, but none on her face or torso. A careful history and physical examination yielded no clue, and all screening tests for a possible bleeding disorder were returned with normal values.

Fortunately, the textbook provided me with a diagnosis. Purpura simplex also known as "Devil's Pinches" is a curiously ill defined disorder affecting young women. No underlying cause can be identified and it is said that the Devil is attracted to these subjects and expresses his affection by pinching them during his nocturnal forays.

A few years later, I called a surgical colleague to refer him a patient "Hi, Doctor Ramanan, how are you?" was the warm greeting from the receptionist. "I am the one who came with all the bruising," she said. "And what happened?" I cautiously inquired. I was reluctant to probe too deeply into diagnostic failures. "They've all gone", was the response. "You won't believe this," she repeated "but I was as blind as a bat, bumping into everything because I couldn't see where I was going. Once I got my glasses, no more bruises". Amazing. I had seen my first (and only) patient with Myopia Haemorrhagica. Sundaram V Ramanan, Associate Professor of Clinical Medicine, University of Connecticut, USA.

PRIMARY
EYE CARE

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