

Case study: Broken glasses and much more

Some patients that present to optometry could easily present to general practice and vice versa. Some optometrical patients have significant associated systemic disease, which can make the day of the optometrist more interesting. One such person was Mr. A, who presented to his local optometrist because he had broken his spectacles.

Mr. A described his eyes as feeling “gritty – like conjunctivitis”. And it had been like that for a week or more. He said that there was no discharge coming from them and there was none evident on the day he presented. He was on analgesics for a sore shoulder and mild blood-pressure medication. The refraction was unremarkable. The lid margins were inflamed due to Meibomian gland dysfunction, which could have accounted for his ocular discomfort in his right eye, but the superior bulbar conjunctiva was tethered to the palpebral conjunctiva in his left eye, indicating something more.

Referral to a local ophthalmologist confirmed a diagnosis of cicatrising conjunctivitis on his left side. The ophthalmologist questioned him further, and discovered that he

had also had some problems with his gums, so referred him further to the dental department at the local hospital to see if he has some form of mucous membrane pemphigoid. The ophthalmologist prescribed topical steroid drops in the short term, but commented on the need for close follow-up and possibly systemic treatment in the future.

Mucous membrane pemphigoid (MMP) is a rare group of chronic autoimmune disorders characterised by blister-producing lesions that affect various mucous membranes of the body, most often in the mouth and conjunctiva. In 2/3 of the cases, it is the oral lesions that are the first sign. The disease usually manifests between 50 and 70 years, and the prevalence is 2:1 female:male.

The disorder is hard to eliminate – the treatment goal is to suppress the formation of the blisters and healing of the eroded blisters. Topical steroids are used to treat mild localised lesions, but systemic steroids might be needed to treat severe symptoms. As an autoimmune disease, there seems to be a genetic and an environmental component in the development of the condition. MMP is characterised by junctional separation at the level of the basement membrane.

Mr A’s presenting symptoms of conjunctival discomfort are typical.

In the eye, involvement of the conjunctival mucosa can lead to scarring between the bulbar and palpebral conjunctiva – symblepharon – as happened to Mr A.

If the palpebral conjunctiva scars, entropion can occur, with pain and scarring of the cornea from trichiasis. Scarring of the lacrimal gland and duct can lead to decreased tear and mucous production, leading to dryness/grittiness symptoms and further risk of ocular damage. Keratinisation of the cornea can lead to blindness in severe cases.

Just as in general practice, optometrists are on the lookout for the common as well as the rare causes for the symptoms that the patient presents with...even if he has only presented due to broken spectacles!

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Nutrition, dietary supplements and cataract

Epidemiological studies have shown that many nutrients are associated with reduced risk of nuclear cataract, especially in men. These included vitamins A, C and E, riboflavin, thiamine, niacin, folate, α -carotene, lutein and fibre. High protein intake is also associated with reduced risk¹.

Compared to nonusers, the risk for cataract is 60% lower among persons taking multivitamins or supplements containing vitamin C or E for more than 10 years. Use of vitamins for less duration is not associated with reduced risk for cataract². Vitamin C reduces the risk of cortical cataracts in women aged 60 years or less & carotenoids reduce the risk of posterior subcapsular cataract (PSC) in women who have never smoked³. A recent report also suggests that lutein and zeaxanthin (the only carotenoids found in the lens) may retard aging of the lens⁴. Higher intakes of protein, vitamin A, niacin, thiamine, and riboflavin (i.e. vitamin B-complex) are associated with reduced prevalence of nuclear cataract⁵.

As the use of herbal supplements continues to grow, some concerns have become apparent regarding the safety of these products. Of particular safety concern is potential for interactions of these products with conventional drugs.

It has been documented that as many as 31% of the patients who use herbal supplements do

so in conjunction with prescribed drugs and about 70% of these patients do not regularly report the use of these products to their health care providers⁶. Of most concern is the bleeding tendency when herbs like Ginkgo are taken along with aspirin or other blood thinner. Bleeding may occur inside the eye in patients taking Ginkgo⁷. However, the effect of Ginkgo Biloba extract as a potential antiglaucoma therapy is undergoing scrutiny.

Bilberry has a long history of use for various eye conditions. The active components, carotenoids, are potent antioxidants with a particular affinity for the eye and vascular tissues. In a report of 50 patients with age-related cataracts, a combination of bilberry and vitamin E delayed the progression of cataracts⁸.

1. *Ophthalmology* 2000; 107: 450-456.
2. *Arch Ophthalmol* 2000; 118:1556-63.
3. *Am J Clin Nutr* 2002; 75:540-9.
4. *Arch Ophthalmol* 2002; 120:1732-7.
5. *Journal of Clinical Pharmacy & Therapeutics* 2002;27; 391-401.
6. *Ophthalmology* 2000; 107:450-6. Head K.
7. *N Engl J Med* 1997 10; 336:1108
8. *Altern Med Rev* 2001; 6:141-166.

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