



Eye Affairs

Common eye diseases in the elderly *by Dr Jovina See*

AS WE GROW older, there is an increased risk of getting eye diseases, which may lead to visual impairment. There are various types of eye diseases that can affect the elderly, and it is vital for us to recognise the symptoms and understand the treatments required.

Cataracts

According to the WHO (World Health Organization), cataract is the most common cause of reversible blindness worldwide. Cataract is an age-related eye condition and is present in almost all who are aged 60 and above, although some may even start to develop cataracts in their early 40s. In the younger age group, cataract can be present at birth or develop as a result of injury.

The lens in our eye consists largely of protein and water, and is transparent when we are young. As we age, however, there is a gradual loss in the transparency of the lens due to metabolic changes of the crystalline lens fibres, which includes protein denaturation. This results in a yellowish to brownish tint forming in our lens which increases over time and progressively blocks light from reaching our retina, thereby clouding our vision.

In the initial stages, we may notice our vision becoming poorer in dim light. Our spectacles' prescription may start to show changes. Colours may appear more washed out, although we may not notice this as cataracts often progress

slowly and insidiously. As our vision gets progressively blurrier, day-to-day activities like reading and driving become more difficult.

When the level of blurring impacts the daily lifestyle of the person, surgery to remove the cataract is indicated. Cataract surgery today is very safe and effective and is done as a day-surgery procedure that is claimable under Medisave. With advances in the design of multifocal (for presbyopia or "laohua") and toric (astigmatic) intraocular lens implants, cataract patients today can look forward to total spectacle independence, even for reading.

Prolonged ultra-violet light exposure, long-term use of medications such as steroids and certain conditions like high myopia and diabetes are also risk factors for the development of cataracts. Wearing sunglasses to reduce UV exposure can help to prevent early cataract development.

Pterygium

This eye condition is often mistaken for cataract. A pterygium is a fleshy, white or pinkish tissue that grows on the outside of the eye from the conjunctiva (white part of the eyeball) onto the cornea. This condition often results from long-term UV exposure.

In its early stages when it is still small, it does not cause any symptoms, and no treatment is necessary. Sunglasses and lubricant eye drops are helpful in preventing further growth,

as UV exposure is one of the causal factors. As the pterygium grows larger, it can give rise to increased astigmatism and blurring of vision, and may eventually block vision. It may also become inflamed and cause discomfort intermittently. Surgery would then be required to remove the pterygium and treat this condition.

Glaucoma

Glaucoma is the most common cause of irreversible blindness worldwide, according to the WHO, and accounts for 40% of blindness in Singapore. It is an eye disease which occurs when fluid pressure within the eye becomes too high, damaging the delicate fibres of the optic nerve that carries visual impulses from the eye to the brain. This damage is irreversible and leads to visual field constriction and blindness in advanced cases. There are two common subtypes of glaucoma: open angle glaucoma and angle closure glaucoma.

Although glaucoma can be present in newborns to young adults, the risk of having glaucoma increases for those over 40 years old. In Singapore, glaucoma affects at least about 3% of those aged over 40. This risk increases with age. Some glaucoma sufferers may experience headaches, blurring of vision, haloes or eye redness and pain. However, the majority of glaucoma patients do not suffer any symptoms at all in the early to moderate stages. As blurring of vision first occurs only in the peripheral visual field, many people do not notice this and only realise it when their central visual field becomes affected. By this stage, the disease is in its advanced stages and the damage done is irreversible. Hence, glaucoma is known as “the thief of sight”. It is therefore essential to diagnose and treat this condition as early as possible before significant damage is done. The type of treatment required depends on the subtype and severity of glaucoma present. Treatment includes anti-glaucoma eye medications, laser therapy or surgery. Lifelong monitoring by an ophthalmologist is essential.

Age-related Macular Degeneration (AMD)

Age-related Macular Degeneration (AMD) is another common eye condition associated with ageing that gradually destroys our central vision. AMD affects the macula of the eye, which is the part of the eye that allows us to see fine details. The macula is located in the centre of the retina, the light-sensitive tissue at the back of the eye. Our central vision is vital in allowing us to see objects clearly and for daily tasks such as reading and driving.

AMD is one of the leading causes of blindness in many developed countries. In Singapore, it ranks among the top four causes of blindness. It typically affects those above 50 years of age.

There are two forms of AMD – “dry” and “wet”. Dry AMD is painless and usually affects people over the age of 60. Dry AMD occurs when the light-sensitive cells in the macula slowly break down, gradually blurring our central vision; yellow deposits known as drusen may be seen in the retina. This form of AMD is more common than the wet form. In the more dangerous “wet” form of AMD, abnormal blood vessels grow under the macula and leak blood and fluid. This causes retinal cells to die and creates blind spots in our central vision. An early symptom of wet AMD is when straight lines appear to be wavy.

AMD can cause debilitating blindness, and if present, should be treated as early as possible. Treatment options include intraocular injections of certain medications, laser therapy and surgery.

Diabetic Retinopathy

Diabetic retinopathy is also one of the leading causes of blindness in many developed countries, including Singapore. This eye condition usually develops in patients whose diabetes is poorly controlled. In its early stages, there are no symptoms, and vision remains normal. Therefore, an annual eye screening or retinal photograph is recommended for all diabetics, even when their medical control of diabetes is good. In an eye examination, the ophthalmologist is able to assess if vision may be threatened by the growth of abnormal blood vessels in the retina at the back of the eye. In diabetes that is poorly controlled, these abnormal vessels may bleed and cause a sudden drop in vision. Swelling at the macula may also occur and can quickly affect central vision.

Diabetic retinopathy can be treated by laser therapy (to stop the growth of new abnormal blood vessels in the retina), performed as an outpatient procedure. In severe diabetic retinopathy, surgery may be required to regain vision. Keeping a good control of diabetes with regular exercise, a healthy diet and appropriate anti-diabetic medications can help to avoid this sight-threatening disease.

Be Active in Keeping your Eyes Healthy

Our eyes are responsible for the million and one things we see. Good vision allows us to be independent and gives us our self-confidence; it greatly determines our quality of life. It is therefore important to be aware of the many eye conditions that can affect us as we age, and to be active in keeping our eyes healthy. eh



Dr. Jovina See is a Senior Consultant at Shinagawa LASIK & Eye Centre.