

## UPDATE ON EYE PROBLEMS

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Eye conditions make up to about 3% of General Practitioner consultations. The eye is commonly described as the window to the world and it can also be described as the window to the body. Many systemic disorders can affect the eye and many diseases have characteristic manifestations in the eye.

### VISUAL MEASUREMENT AND STRABISMUS

It is a challenge to measure visual acuity in infants and children. For infants, they cannot tell you what they see. For young children, they tell you whatever they like to see. How often do you encounter a child who refuses to read the numbers on the Snellen Chart during routine 4-year-old developmental assessment? To overcome such problems, we need good techniques and skills in communication. You must explain to the parents and understand the behaviour of the child. The best technique is to treat it like a game.

A normal alignment of the visual axis is important for Binocular Vision. Misalignment of the axis is term as Squint or Strabismus. Family Physicians should do a yearly screening for squints in children under their care as it can develop at any age. The two most commonly performed tests are the corneal light reflect test and the eye movement cover test. Any abnormalities detected should be referred to an Ophthalmologist for assessment.

### DIABETIC RETINOPATHY AND PHOTOGRAPHY

Diabetic retinopathy is the leading cause of blindness in the working age group in developing countries. Singapore has among the highest prevalence of diabetes in the world. The risk factors for developing diabetic retinopathy are duration of the disease and control of blood sugar. After 20 years, nearly all IDDM patients have some form of retinopathy. The DCCT trial showed that higher Hba1c increases the risk of developing retinopathy and nephropathy. The aim of management of diabetic retinopathy is to reduce visual loss and prevent blindness. This can be achieved by screening for diabetic retinophotography and good diabetic control. The key to preventing diabetic blindness is through early detection via diabetic retinal photos. This can be done at major hospitals, polyclinics and recently, in some General Practice clinics. The photos are read by senior polyclinic doctors or an Ophthalmologist. Patients with abnormal photos are referred to an Ophthalmologist in the hospital.

### OCCULOPLASTIC SURGERY

Recently, there have been many reports in the Strait Times about BOTOX parties. I guess this makes sense because the botulin toxin will have to be used quickly once diluted as it is unstable. What better ways to maximise its usage except through such parties. However, Oculoplastics is not just about cosmetics. Botox toxins can be used to treat many medical conditions such as Hemifacial spasm.

Common eyelid conditions such as ectropion, entropion, ptosis, thyroid problems and facial palsy can threaten the vision, is painful, irritating and cause watery eyes. Many of these conditions can now be treated surgically. Gone are the days when people comment that you look like a "ghost" because eye bags can be treated and corrected surgically.

### AGED-RELATED MACULAR DEGENERATION

Aged-related Macular Degeneration (AMD) is a common cause of severe, irreversible vision loss in people over the age of 65 in the western world. Treatment is only effective in the early stages of the disease. Therefore if vision loss is to be prevented, early detection is vital.

The exact cause of macular degeneration is unknown. There are two forms – wet and dry. Dry AMD is more common in about 90% of all cases. There is no treatment available for dry AMD; secondary prevention is possible with antioxidants and zinc. Wet AMD is less common. It can be treated with laser surgery, photodynamic therapy and macular translocation surgery.

### CATARACT AND GLAUCOMA

As we age, our eye lens change in size and coloration. This process is termed as cataractogenesis. This opacification is seen in the cortex of the lens and the nucleus. Early lens changes occur at age 50-60 and patients may not experience any changes in visual acuity. As it progresses, patients will notice "glare" or "spoke" emanating from an oncoming car headlight or street lamp. The treatment is cataract surgery.

Glaucoma is a condition in which the intraocular pressure is too high for the normal functioning of the optic nerve. When the nerve is damaged, there is progressive visual field loss leading to irreversible blindness. It is divided

into open and closed angle glaucoma. The treatment of open angle glaucoma involves the use of pharmaceutical agents that decrease the production of aqueous fluid and increase drainage at the ciliary body. Treatment of closed angle glaucoma involves the creation of an outflow pathway for drainage of the aqueous. This is accomplished with laser surgery.

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