



FOR THE LITTLE ONES

PAEDIATRIC OPHTHALMOLOGY IS A SUB-SPECIALTY OF OPHTHALMOLOGY WHICH deals with eye diseases, visual development, and vision care in children. The difference between paediatric ophthalmology & adult ophthalmology is much more than eye size. In children, there is always the danger of lazy eye and timely intervention is crucial to prevent a lifetime of poor vision. For instance, when an adult patient develops a cataract (cloudy lens), surgery can be scheduled electively at any later date to restore the vision. However in children with congenital cataracts, the lazy eye from visual deprivation can result in permanent poor vision if surgery is delayed.

One of the most common and yet misunderstood illnesses is strabismus. This is a misalignment of the eyes that affects 2-4% of the population; it is often associated with amblyopia. The inward turning misalignment commonly referred to as "crossed-eyes" is an example of strabismus. The term strabismus applies to other types of misalignments, including an upward, downward, or outward turning eye. In Singapore, the most common misalignment is exotropia (outward deviation). Children do not outgrow true misalignment. If left untreated, strabismus can result in loss of vision/ lazy eye, loss of depth perception or double vision. The goal of strabismus treatment is to straighten the eyes and allow the eyes to be used together (binocular vision). Treatment may involve eye glasses, eye exercises and/or eye muscle surgery.

Amblyopia (lazy eye) occurs when the vision of one eye is significantly better than the other eye, and the brain begins to rely on the better eye and ignore the weaker one. There are many different causes of amblyopia, such as strabismus, difference in degree between the two eyes, uncorrected degrees in the eyes and media opacities (something blocking the visual axis of the eye). Amblyopia affects 4% of the population. The management of amblyopia involves correcting the causative problem such as giving the appropriate glasses or clearing the media opacity. More importantly, treatment also involves using techniques that encourage the brain to pay attention to the weaker eye such as patching the stronger eye (occlusion therapy).

Refractive errors (e.g myopia) is another major disorder affecting children in Singapore – so much so that we are one of the myopia capitals of the world, with myopia prevalence more than 25% in primary school children. What is more alarming is

that our children are becoming myopic at a younger age. The more myopic a person is, the more likely he/she will develop blinding complications like retinal detachment, myopic macular degeneration, cataract and glaucoma. Once a child is myopic, we must try to retard the progression by treatment with eye drops and eyeglasses.

Any child can develop eye problems. A positive family history puts the child at increased risk. Certain groups of patients, such as those born prematurely, those with disorders like Down's syndrome and cerebral palsy may have increased risk of eye problems. Some infections acquired in utero also put the patient at increased risk.

It is important to have eye checks in order to prevent eye problems. Some parents have the misconception that the child is too young to be checked if he does not know his alphabets. In the eye clinic, there are different methods for checking children who are preverbal. The eye power of the child can also be determined using objective methods (cyclo-retinoscopy) that does not require the child to read.

As long as the child's visual behaviour is not normal or the eye does not seem to be fixing well, the child needs to be evaluated by an eye specialist. Even when there is no problem, a child should have a detailed eye check before entering school. Children with risk factors should be evaluated earlier. Eye problems in children need to be treated early, especially for amblyopia which can only be treated well in early childhood. ■



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