GP IN-SYNC

A monthly e-newsletter by NUH GP Liaison Centre

Specialist in Focus



Hotline: +65 6772 2000

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Dr Cheryl Ngo

MBBS (S'pore), MMed (Ophth), FRCSed

Consultant, Department of Ophthalmology Dr Cheryl Ngo is the current Head of Paediatric Ophthalmology and Strabismus at NUH. She obtained her medical degree from the National University of Singapore and was awarded the Singapore Medical Association Medal for MBBS, the Yeoh Khuan Joo Gold Medal for surgery. She completed her specialist ophthalmology training in Singapore, and was a fellow of the Royal College of Surgeons of Edinburgh. She also holds a Master of Medicine (Ophthalmology), Singapore.

Dr Ngo's interests are in general and paediatric ophthalmology, cataract, and strabismus in both children and adults. She also performs adult cataract surgery.

Dr Ngo is active in medical education and is currently a tutor for the medical undergraduates as well as the ophthalmology residents. Apart from having published in notable peer-reviewed journals and books, she has presented at various international meetings in aspects of paediatric ophthalmology, cataract, glaucoma and general ophthalmology. She is also involved in various large multi-centre trials in paediatric ophthalmology.

Clinical Highlights

Strabismus

Strabismus is a condition that causes an adult's or child's eyes to point in different directions. There are several possible causes of strabismus, including weak eye muscles, heredity, cataract, and nerve conditions.

Treatment may include a combination of patching, eye glasses, eye drops, eye exercises, and surgery. Surgery is only recommended if patching or eye glasses do not work. Strabismus surgery involves tightening the weak muscles and/or loosening the stronger ones, so that the eyes are positioned better.

Special absorbable stitches will hold the eye muscles in their new position. The surgeon will not cut the skin around the eye, take the eye out of its socket, or use any lasers during the operation.

Esotropia Exotropia Exotropia Hypertropia Hypotropia

Figure 1: Types of strabismus

Retinopathy of prematurity (ROP)

Retinopathy of prematurity, or ROP, occurs when small abnormal vessels are formed in a premature baby's eye(s). The vessels can lead to bleeding and scarring. They may also cause the retina to move from its normal place in the eye. This is called retinal detachment. The baby's eyes will be checked often for any changes. It is important to keep the eye appointments, as abnormal vessels can form quickly. The treatments depend on the child's condition, and may include laser, injections in the eye, or surgery to repair the retinal detachment.



Figure 2 : Retinopathy of prematurity (ROP)

Paediatric Cataracts

A cataract is a cloudy area over the lens of the eye. When a child has a cataract, the lens cannot focus the rays of light onto the retina normally. Instead, the lens produces blurry images, which reduce the child's vision. If the cataract is more serious, the child will need surgery to remove it.

Cataracts cannot be removed with medication or lasers. Surgery is important because it will allow the child's vision to develop as normally as possible. After surgery, the child will need a corrective device such as a contact lens, intraocular lens, or eye glasses. The child may also need to wear a patch to help both eyes develop equally strong vision.



GP Liaison Centre (GPLC)

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Specialist in Focus



Dr Dawn Lim

MBBS, MRCP (UK), M.Med (Int.Med.), M.Med (Ophth)

Associate Consultant, Department of Ophthalmology Dr Dawn Lim is an Associate Consultant with the Department of Ophthalmology, National University Hospital.

An awardee of the Ministry of Health training scholarship, Dr Lim proceeded to complete her advanced specialist training in Ophthalmology in 2014. During her training years, she held the administrative appointment of Chief Resident from 2011 to 2012, and has received research awards, grants, co-authored scientific papers in peer-reviewed medical journals and presented her work at international/regional scientific conferences. Dr Lim has also co-authored several book chapters in Ophthalmology texts.

Her clinical interests include visual problems in the elderly, medical and surgical management of glaucoma, ocular inflammatory disorders, and advanced adult cataract surgery.

Her main research interests include visual issues related to functional aging and glaucoma. Dr Lim is active in teaching and holds a joint appointment as a clinical lecturer, with the clinical faculty scheme of Yong Loo Lin School of Medicine, National University of Singapore.

Clinical Updates

Glaucoma

Glaucoma is a disease process characterized by progressive optic nerve damage and corresponding visual field loss, which may or may not be associated with raised intraocular pressure (≥21mmHg). Glaucoma may be further categorized into either open-angle glaucoma - primary or secondary, and angle-closure glaucoma - primary or secondary.

Glaucoma is one of the leading causes of irreversible blindness globally, with the global prevalence for population aged 40 and above, estimated to be approximately 3%.

Genetic mutations have been described in association with primary open-angle glaucoma and primary angle-closure glaucoma.

Data from the Western countries estimates that approximately half of patients with manifest glaucoma are undiagnosed.

As early disease often goes unnoticed, it is best advised for older individuals or individuals with a proven family history (especially amongst first-degree relatives) of glaucoma to seek a formal assessment with an Ophthalmologist.

Apart from risk factors such as age, hereditary risk and race, chronic medications such as steroids may predispose one to developing glaucoma. At present, intraocular pressure is the only modifiable risk factor in the management of glaucoma.

To aid in diagnosis and for monitoring purposes, several investigations aside from the measurement of intraocular pressures may be performed periodically as indicated clinically. These investigations include optic nerve head imaging for structural changes and functional assessment in the form of standard automated perimetry to aid in visual field assessment.

Management of glaucoma includes medical (mainly in the form of topical eye drops) and surgical options (namely lasers, trabeculectomy, and glaucoma drainage device implantation). The NUH Glaucoma Service is one of the tertiary and quaternary services, provided by the Department of Ophthalmology, which serves a large pool of glaucoma patients locally, regionally and internationally.

We are equipped with the latest state-of-the-art monitoring devices to provide advanced, cutting-edge, and evidence-based care for patients afflicted with this condition. We continually innovate to achieve one of the best surgical outcomes for glaucoma patients, with recent audit demonstrating excellent surgical results in patients who have undergone glaucoma filtering or drainage device implantation.



Figure 1. Normal view in an unaffected individual.



Figure 2. Advanced glaucomatous field loss with tunnel vision.



Shaping Medicine for the Future

CME Registration: https://nuhcme.com.sg/

News Updates Big relief for young scoliosis patients



The procedure involves implanting magnetically controlled rods and the first person to undergo this new surgery is Joycelyn Ng, seen here with Associate Professor Gabriel Liu.

Young scoliosis patients usually have to undergo surgery twice a year to adjust the rods that are keeping their curved spines straight. But the National University Hospital (NUH) has done away with the need for that. It has started to implant rods that can be adjusted with magnets in a matter of seconds, saving these patients the pain of a $1^{1}/_{2}$ hour operation.

"Each time you do (conventional surgery), you worry about the risk of infection, the pain, the time lost, the anxiety for patients and their parents," said Associate Professor Gabriel Liu, who carried out Singapore's first such procedure last year. Scoliosis is a condition where the spine curves sideways.

Although it may not cause pain, it can affect lung function. Those with a curve of 45 degrees or more usually require surgery, said A/Prof Liu, who is the Deputy Head of the University Spine Centre. The centre's specialists see an average of 700 children for scoliosis every year. For those who require surgery, the rods in their backs must be periodically lengthened to accommodate their growing spines. A seven-year-old, for example, may have to undergo as many as eight spinal operations until he reaches adolescence and is ready for the final surgery to fuse his adult spine in place.

Implanting the rod and each subsequent adjustment used to involve making a long cut down from the top of a patient's spine. But the new technique at NUH is less invasive. The magnetically controlled rods are put in via smaller incisions, and subsequent adjustments can be carried out in the doctor's clinic.

"This method reduces the complications of multiple repeated surgeries," Prof Liu said. Adjustments can also be made more frequently, he added, which could help the spine to grow better. The first person to undergo this new surgery is 12-year-old Joycelyn Ng. Since going under the knife nine months ago, she has been coming back for adjustments of a few millimetres each time at three-month intervals. Her mother, Madam Esther Chow, said she had concerns over how new the procedure was, but also wanted to save her daughter the pain of frequent operations. "Before it, her back would hurt," said the 43-year-old housewife. "We are very comforted now."

Source: The Straits Times (Published on 18 March 2015).

NUH celebrates 50 successful organ transplants between spouses

The National University Centre for Organ Transplantation (NUCOT) at the National University Hospital (NUH) organised the "Mark of Love" event on 14 February to mark 50 successful organ transplants through donations from spouses. Held in conjunction with Valentine's Day, the event also celebrates the gift of love between organ donors and recipients.

"Valentine's Day is widely celebrated as Organ Donor Day around the world. Traditionally, Valentine's Day is a day for special gifts to loved ones. Making the important decision to be an organ donor, and communicating this to your family may be one of the most important gifts you ever presented, and one of the most cherished presents anyone can receive," says Professor KK Madhavan, Co-Director at NUCOT.

"Giving an organ to someone who is in need is truly a gift of love and a gift of life. NUCOT salutes all our donors who have given a gift of love and life. It is especially meaningful this year that we honour 50 valentine couples (husband or wife) who have given an organ to save their loved one from organ failure as we celebrate our nation's 50th birthday," adds Professor A Vathsala, Co-Director of NUCOT.

Mr Loh Ming Wei and Mdm Tan Bee Lay are the 50th couple who have gone through a successful spousal organ transplant at NUCOT. Mdm Tan who is the donor says, "I do not see donating my kidney as a sacrifice. I love him and want him to lead a normal, healthy life." The recipient, Mr Loh Ming Wei, expresses his appreciation, "I would like to thank Bee Lay who donated her kidney to me and gave me a new lease of life. I did not have the courage to face this initially. She initiated and convinced me to accept her kidney."

The event saw 24 pairs of donors and recipients comprising spouses, siblings, parent and child who came together to celebrate a new lease of life post-transplant. They also expressed their appreciation for their loved ones and locked their love for each other on a specially-designed Heart monument.

Source: The Straits Times (Published on 8 February 2015).

Upcoming CME Event

Date	Торіс
9 May	Gynaecological Cancer Update for GPs 2015
Registration & Lu	nch will start at 12.30 pm
NUHS Tower Blo 1E Kent Ridge Ro	ck, Auditorium, Level 1 ad, Singapore 119228

Please call us @ 6772 5695 / 5079 for registration & enquiries or visit our CME Portal @ <u>https://nuhcme.com.sg/</u>.