

## O&G Doctors Perform First Robotic Surgery at KKH



*Team of KKH doctors who completed the first robotic surgery at KKH.*

KKH introduced the use of robotic surgery for O&G conditions with the first such surgery performed in September 2011.

The surgery, led by A/Prof Bernard Chern, Deputy Chairman, Division of Obstetrics and Gynaecology, was performed using the da Vinci surgical system to perform a robotic assisted laparoscopic myomectomy.

This breakthrough technology facilitates complex surgery using a minimally invasive approach and offers patients with an effective alternative to open surgery and laparoscopy.

A/Prof Chern, who is also Senior Consultant

and Head of the Minimally Invasive Surgery (MIS) unit at KKH, believes the field of robotic surgery looks set to grow.

The patient had two large fibroids – the first was 7cm on the fundus, and the second was 9cm arising from the posterior wall and tucked in far down near the level of the cervix.

Enucleation of the fibroids and suturing of the myometrial defect was done with the da Vinci. This was followed by the morcellation of the specimen subsequently, which involved the division of the solid tissues of the fibroids into smaller pieces.

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# O&G Doctors Perform First Robotic Surgery at KKH

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Assisted by a team of doctors, the surgery also involved Dr Jasmine Mohd, Consultant, MIS unit, KKH, who had gone through training at Mayo Clinic Arizona in robotic gynaecological surgery.

"This technology will increasingly be more widespread and available to more patients," A/Prof Chern said. "At KKH, we are starting off with benign gynaecological surgeries, and in the near future we will extend the service to include oncological surgeries as well."

He added: "In general, gynaecological surgeries that can be done with conventional laparoscopy such as cystectomies, myomectomies, hysterectomies, endometriosis surgery, can be performed with the robot."

A/Prof Chern also said the advantages of robotic surgery are apparent as it offers a 3-D vision for the surgeons with the tiny but powerful camera on the end of a robotic arm, which is inserted into the body through small incisions.

The robotic surgical system is also able to do precise stitching with its articulated wristed movement that will translate into better outcomes for the patient. This may be especially useful for complex procedures eg oncological surgery, intracorporeal suturing, and reconstructive pelvic floor surgery.

The team of surgeons at the MIS unit at KKH have undergone specialised training and accreditation to enable them to perform robotic surgeries. Plans are in the pipeline to develop KKH into a regional centre for training in robotic surgery for O&G conditions.



*Courtesy of Intuitive Surgical, Inc.*

## KKH study: Rotavirus most common cause of acute gastroenterology hospitalisations

A study conducted at KK Women's and Children's Hospital (KKH) has found that rotavirus is the most common cause of severe gastroenteritis (GE) in children below five years of age.

The study led by Professor Phua Kong Boo, Senior Consultant, Gastroenterology Service, KKH, found that of nearly 2,000 children younger than five years hospitalised for GE, between September 2005 and April 2008, 39.5% were infected by rotavirus.

Other causes of GE-related hospitalisations included viruses such as norovirus, enteric adenoviruses and astroviruses, and occasionally bacteria including salmonella, campylobacter and E coli.

Prof Phua said: "The most number of children hospitalised for rotavirus gastroenteritis (RVGE) were aged between 13 and 24 months, followed by those aged 0-12 months. Average hospital stays last up to three to four days."

Rotavirus infection can cause severe diarrhoea with watery stools, vomiting, fever, and is often accompanied by abdominal pains and refusal to eat. The fluid loss raises the risk of severe dehydration and hospitalisation. Over 60% of children hospitalised due to rotavirus eventually need an intravenous drip for rehydration.

He added: "Severe dehydration can be dangerous and life-threatening. The younger the child, the higher the risk."

Prof Phua advised parents of children younger than two years to watch for the symptoms and to consult a doctor early if the child has frequent watery diarrhoea with vomiting.

Rotavirus infection spreads mainly through the oral-faecal route, and can affect caregivers as well. Rotavirus can be very resistant and can stay alive on contaminated surfaces for days.

# Subglottic Hemangiomas

## A Paradigm Shift in Treatment Strategy

### Dr Annette Ang

Consultant, Department of Otolaryngology, KKH Associate Program Director, Otolaryngology Residency Program, SingHealth

Consultant at KKH's Department of Otolaryngology, with a keen interest in complex pediatric airway management. She pursued a clinical fellowship in pediatric otorhinolaryngology at Weill Medical College of Cornell University, New York City. During her fellowship at Weill Cornell, Dr Ang spent considerable time in laboratory research exploring the physiologic boundaries of pediatric airway distension on a rabbit model. Her innovative research into an endoscopic balloon dilation approach for subglottic stenosis received the Silver Award at the Society for ENT Advances in Children Annual Meeting (SENTAC) in 2009.

Dr Ang has also been involved in several complex pediatric airway surgeries during her fellowship at Weill Cornell, and upon her return to Singapore, was one of the first otorhinolaryngologists to successfully use propranolol in the treatment of Subglottic Hemangiomas.

Here she shares her experience with the use of oral propranolol in the management of her patients with subglottic hemangiomas.

### INTRODUCTION

Subglottic hemangioma is a rare congenital anomaly. It can occur anywhere in the body but has a predilection for the head and neck region. Often times, though benign in nature, it can cause significant morbidity if it occurs in a vital region e.g. orbital hemangiomas resulting in blindness or subglottic hemangiomas resulting in life-threatening airway obstruction. In addition, it can result in unsightly disfigurement if it is on the face.

### EPIDEMIOLOGY & CLINICAL MANAGEMENT

Reported incidence in the Caucasian population ranged from 8% to 15%. In the Asian populations, reported incidence is remarkably lower at 0.8%. The natural history of this tumor of infancy has been classically described in two phases – a proliferative phase from six months to twelve months of life and an involution phase. In 50% of the children, the tumor will involute completely by five years of age. By seven years of age, 70% of the children will have complete involution. And by ten years of age, 90% will have involuted. A whopping 60% of these hemangiomas occur in the head and neck region whilst 25% of them are found on the trunk and 15% in the extremities (upper and lower limbs). As many vital sense organs (eye, nose and ears) are in the head and neck regions, congenital hemangiomas can cause significant morbidity despite their benign nature. In addition, hemangiomas on the face tend to be disfiguring and a cause of distress to the child's parents. In every case of congenital hemangioma managed, care is taken to exclude the rare PHACES syndrome – Posterior fossa hemangioma, Hemangioma, Arterial anomalies, Cardiac defects, Eye anomalies and Sternal defects.

Given the natural and self-limiting natural history of congenital hemangiomas, the treatment goal has always been to preserve as much function and native tissue as possible while at the same time removing life-threatening masses. In the pre-propranolol era, treatment of such obstructing lesions involved surgical excision, with or without the use of laser. In cases with extensive subglottic hemangioma, a tracheostomy (surgical airway) is undertaken to resolve the stridor and respiratory distress.

### CLINICAL PROTOCOL AT KKH DEPARTMENT OF OTOLARYNGOLOGY

Being the leading ENT unit in Singapore to use oral propranolol in the treatment of subglottic hemangiomas, this treatment regime had commenced at KKH since January 2010 with the assistance of the paediatric intensive care unit. Echography of the heart is performed prior to treatment to exclude any cardiac conditions which may preclude the use of propranolol. The patient is intubated (if his airway is unstable) and oral propranolol started at 1mg/kg/day in the ICU setting. This dose is increased stepwise to 2mg/kg/day. Diagnostic microlaryngobronchoscopy is performed prior to commencement of treatment and at one week post-commencement. If the airway is stable at one week, the patient is extubated. Currently patient is treated with oral propranolol till 18 months old and regular surveillance microlaryngobronchoscopy procedures is scheduled during this 18-month period to assess progress.

### CASE STUDY

This two week old child presented with progressive stridor. Initial endoscopy revealed extensive subglottic hemangioma (Figure 1). Figure 2 represents findings after one week of oral propranolol treatment. This child never required a tracheostomy and is now still on oral propranolol.



Figure 1: Pre-treatment



Figure 2: Post-treatment

### CONCLUSION:

There is no doubt in our minds that oral propranolol is a superior first-line treatment for subglottic hemangiomas, where patients no longer have to be subjected to extensive and complicated surgeries to obtain a stable airway. However, in certain complex, refractory cases, there still remains a role for other treatment modalities like laser excision, oral or intralesional steroids and open surgery.

### References:

1. Léauté-Labrèze C, Dumas de la Roque E, Hubiche T, Boralevi F, Thambo JB, Taïeb A. Propranolol for Severe Hemangiomas of Infancy. *N Engl J Med* 2008; 358:2649-2651



# Moving Forward on the Academic

Research, evidence-based care, clinical trials, clinician-educator - these will be the buzzwords that will form the core of discussions and conversations at KKH.

As part of its Academic Medicine journey, KKH has rolled out the academic clinical programme, or ACP, in partnership with Duke-NUS that will pave the way for new research, sharing of knowledge and care innovation to ultimately benefit the patients.

*Special Delivery* had a chat with two KKH clinicians pivotal to the development of the ACP and how patients are put at the heart of a vibrant Academic Medicine culture at the hospital.



*Professor Chay Oh Moh*  
Senior Consultant and Chairman, Division of Medicine  
Academic Chair, Paediatric-ACP



## SD: WHAT DOES ACADEMIC MEDICINE MEAN TO YOU?

Academic Medicine is a continuous journey to enhance patient care through high sustainable clinical quality augmented by education and research.

This is a critical step for KKH to play a leadership role in promoting the highest standard of cost effective care for women and children through research in healthcare delivery and also plays a pivotal role in facilitating the training of future generations of medical students and doctors.

## SD: WE ARE MOVING TOWARDS THE ACADEMIC CLINICAL PATH. WHAT WOULD THIS MEAN FOR THE HEALTHCARE PRACTITIONERS?

With the ACP, there are more options. One can remain a committed clinician, or be given the opportunity to fulfil their passion for education or research.

What it means is a greater opportunity and emphasis to work as a collaborative team, leveraging on the strengths of each and every individual of the team.

## SD: WHY IS MENTORSHIP AND TEACHING AN IMPORTANT PART OF ACP?

The mentor is like a guiding light that helps the mentee navigate the challenges in the development process, especially during difficult encounters. It is important to also upkeep a learning attitude as medicine is a fast changing discipline.

One has to be skillful no doubt, but there is a need for continued self-directed learning so as to be in tune with latest developments, which is beneficial to our patients.

## SD: WHAT ARE THE GOALS AND OUTCOMES THAT CAN BE ACHIEVED WITH CONTINUED RESEARCH?

Research enables us to find the answers to clinical questions which have no known answers yet and always with patients' well-being and benefits as the utmost concern.

Without research, there can be no progress and improvement in clinical care, so it is important that we continue to conduct research to achieve better outcomes.

## SD: WHAT WOULD THE ACP MEAN TO PATIENTS?

The ACP will, through research in care delivery and educating, nurture the next generation of knowledgeable and compassionate doctors.

Ultimately we are looking at an improvement in both clinical quality and patient satisfaction through enhanced care delivery.

"Academic Medicine is a continuous journey to enhance patient care through high sustainable clinical quality augmented by education and research."

# Academic Medicine Journey



Associate Professor Tan Kok Hian  
Senior Consultant and Chairman, Division of O&G  
Academic Chair, Obstetrics & Gynaecology-ACP

## SD: WHY IS THERE A NEED TO MOVE TOWARDS AN ACADEMIC MEDICINE CULTURE?

Academic Medicine is taking a holistic approach. Besides care and service delivery, it also looks at education and research. It would mean more evidence-based medicine, higher quality care and improvement projects.

For clinicians interested in education and research, Academic Medicine is a way for them to develop and evolve to clinician-educators or to clinician-researchers, as a clinician scientist or clinician-investigator. Academic Medicine allows for diversity in the roles of the doctors, nurses and allied health professionals.

## SD: WHAT CAN WE EXPECT WITH THE ACP TAKING SHAPE?

It's the practical application of education and research to our clinical practice, and in very effective ways.

For the clinician practitioners, we will continue to nurture them with quality improvement projects to do better evidence-based care.

For those inclined towards education and research, we also nurture them. We will provide resources and also foster further collaborations with external agencies and institutes, in addition to the current collaborations with other hospitals and Duke-NUS and Yong Loo Lin School of Medicine. We will further promote collaborations with overseas agencies for example in Australia, USA and the Netherlands.

## SD: HOW FAR WILL THE SPIRIT OF INQUIRY IN ACADEMIC MEDICINE GO?

There is an excitement about Academic Medicine. Besides the provision of services for our patients, people will be excited and keen to learn, and to be able to teach and to share. They will be asking questions like what are the things we can do better for our patients, ways to innovate that will make a difference in getting better outcomes. There will be parallel activities such as discussions and interactions on KKH campus on how to always improve patient care and outcomes.

## SD: HOW DO YOU THINK PATIENTS WILL RESPOND TO THE EXPANSION OF RESEARCH AND CLINICAL TRIALS?

We are already doing this and most patients want to help in the process. They want to know that future sufferers of the conditions may have better care.

The patients themselves can empathise because they have gone through it themselves. They are willing to be able to contribute towards science, towards the discovery of a better way to treat, a better way to prevent or even a better way to diagnose.

**KKH is leading the academic clinical programme for SingHealth's O&G and Paediatrics tracks.**

## What are some practical and useful tips for parents to help their kids relieve symptoms of allergic rhinitis at home?

**A:** Children with allergic rhinitis will have symptoms of runny nose, itchy nose, blocked nose and cough. Besides complying with treatment of allergic rhinitis, reducing the child's exposure to house dust mites and cigarette smoke exposure will also be useful.

Methods to reduce house dust mites include washing the pillow cases and bedsheets in hot water (>60°C), vacuuming or sweeping and wet mopping floors, removing carpets from the bedroom, removing furry toys from the bed and for those with pets, not allowing their pets into the bedroom. Parents may want to try using anti-dust mite covers in the case of severe symptoms though these may cost more.



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Do you have any medical related questions? To get them answered, email them to [Ng.Mei.Li@kkh.com.sg](mailto:Ng.Mei.Li@kkh.com.sg)

## A Pat on the Back



Dear Dr Wee Horng Yen

My wife was recently admitted to KK Women's and Children's Hospital and this was our first experience with the medical services provided at KKH.

Throughout our journey and interaction since the first appointment on 25 July, we were 'blown over' by the level of customer service and personal attention rendered by all the employees we encountered in the different sections. We are totally impressed by the training provided to all employees that had instilled the hospital's values in them. We are working professionals in the field of Hospitality & Tourism where service is key and is preached daily in the respective divisions we look after. Being in similar service-related industry, we are particular and yet tolerant towards hospitality professionals and what they have to deal with on a day-to-day basis. We have nothing but compliments for the service we experienced and we have submitted several feedback forms with positive feedback of our experience.

This note is to recognise the team of nurses at Ward 72, who have been superb in showing their genuine care and concern, and Dr Wee Horng Yen who is quite the primary reason why we decided to proceed with the operation.

Dr Wee's professionalism, humility, care and sincerity shown throughout the whole treatment journey gave us the reassurance and confidence to proceed with the operation. His calm and steady demeanour with consistency of care shown to his patients is highly commendable! We would like to thank the team of nurses and service personnel that had attended to us during our stay at Ward 72 such as the cleaning ladies, food ambassadors/ servers, housekeeping services, newspaper delivery, physiotherapist and especially the professional approach the nurses introduced themselves during their shifts - that is just commendable.

"Feeling gratitude and not expressing it is like wrapping a present and not giving it." - William Arthur Ward

Sincerely  
Faizal & Janet

Dear Division of Nursing,

My wife and I would like to commend Orthopaedic Resource Nurse Sharifah who had gone the extra mile in helping my son, who had injured his hand, to get around the hospital while we were overseas earlier this year. She even gave her own handphone number to my son.

When he arrived for his medical appointment, she helped him to arrange for the consultation quickly knowing that he had to go back to school for extra lessons as this is his PSLE year.

WE would like to say a BIG THANKYOU to Nurse Sharifah for a job **WELL DONE!**

From Mr and Mrs Tan



The annual Kidz Horizon Appeal Gala Dinner brought together more than 400 guests for a good cause. The signature event marked the seventh consecutive year that Kidz Horizon Appeal (KHA) is raising funds for KKHHEF in aid of needy patients who require financial assistance.

Themed *A Night at the Riviera*, the dinner was held on 27 August at the Ritz-Carlton, Millenia with Defence Minister, Dr Ng Eng Hen as the Guest of Honour.

The event raised \$650,000, with a further \$290,000 raised from donations and charity auctions.

## Be Part of a Life-Saving Cause!

The KK Hospital Health Endowment Fund (KKHHEF) raises funds to help needy patients who are in need of financial assistance for their medical treatment. The fund also supports education, research and disease prevention programmes targeted at women's and children's health.

Your donation, no amount is too small, goes a long way to make a difference in the lives of needy patients.

To make a donation, please call 6394 2327 or email [kkhef@kkh.com.sg](mailto:kkhef@kkh.com.sg)



(L to R): Dr Caroline Low-Heah, Chairperson, KHA; Guest of Honour, Dr Ng Eng Hen, Defence Minister; Prof Tan Ser Kiat, Group CEO, SingHealth; Mrs Celeste Basapa, Committee Member, KHA



Adding the finishing touches to Singapore's Largest Pink Ribbon Logo made of Cupcakes. Guest of Honour, Dr Lam Pin Min - Chairman, GPC for Health (Second from right) and KKH Senior Management.



This attempt sets the record for Singapore's Largest Pink Ribbon Logo made of Cupcakes.

"Don't be shy. Let's talk about it." is available for viewing on Youtube. Look for it on [www.YouTube.com/KKHSpore](http://www.YouTube.com/KKHSpore). Search under favourites and share it with your family and friends!

## Baking in the Thousands to Spread Awareness

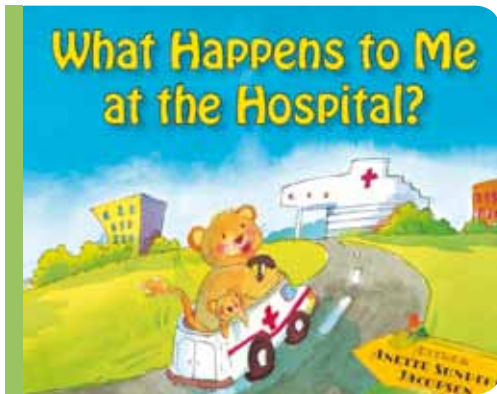
To mark Breast Cancer Awareness Month this year, ten breast cancer survivors of KK Hospital's Alpine Blossoms Breast Cancer Support Group joined chef Judy Koh and the staff of Creative Culinaire to create Singapore's largest Pink Ribbon logo made of cupcakes.

This record-breaking attempt on 24 October involved the baking and assembly of 3,038 pink ribbon cupcakes. All proceeds from the sale of these pink ribbon cupcakes went towards the KK Hospital Health Endowment Fund.

To further raise awareness about breast cancer, KKH also commissioned a filmlet "Don't be shy. Let's talk about it." to encourage women and their families to shed false impressions and inhibitions related to breast screening and breast cancer.

The filmlet, starring Ms Neo Swee Lin and Ms Glory Ngim, was supported by the Health Promotion Board. It was written by renowned playwright Mr Hareesh Sharma, directed by acclaimed film-maker, Ms Wee Li Lin, and filmed by award winning visual artist Mr Charles Lim – the first Singaporean to receive a jury award at the prestigious Venice Film Festival.

# What's New?



## New KKH Book To Help Ease Hospital Stay For Young Patients

*"A stay at the hospital is usually not something to look forward to, but it should not be something to be feared either,"* said Associate Professor Anette Jacobsen, Chairman, Division of Surgery at KKH.

To help young patients and their parents better understand what to expect during their hospital stay, a child-friendly hospital guide, specially authored by A/Prof Jacobsen, was launched on Children's Day on 7 October 2011.

Titled *What Happens to Me at the Hospital?*, the book was illustrated by award-winning illustrator, Mr Patrick Yee and is targeted for children between eight and 12 years old.

*"This book can help parents to prepare their children and make it a less daunting experience for their child,"* said A/Prof Jacobsen.

Prof Ivy Ng, CEO, KKH, added: *"Written in simple language with colourful illustrations that children can relate to, the book will help familiarise young patients and their families with the different experiences and procedures encountered at a hospital."*

### Where:

The book, published by SingHealth Academy, is available for sale at \$10.70 at KKH Pharmacy from November 2011.

Proceeds from the sale will go to the KK Hospital Health Endowment Fund.



Above photo: Layla Hanwa, 9, received an autographed copy of *"What Happens to Me at the Hospital?"* on Children's Day.

(In this photo standing from left to right: Prof Ivy Ng, CEO, KKH; Mother of inpatient Layla Hanwa; A/Prof Anette Jacobsen, Author and Chairman, Division of Surgery, KKH; Ms Tan Soh Chin, Director, Nursing, KKH; Ms Chong Pik Wan, Chief Development Officer, KKH)

Download the free app on your iPhone now! Visit the apple appstore and search for "KKH HealthPedia".

## KKH iPhone App Bags Regional Award

KKH's iPhone application has bagged an Excellence Award at the Asian Hospital Management Awards under the Marketing, PR or Promotional Award category.

The first-of-its-kind iPhone application named *'Woman&Child HealthPedia'* provides on-the-go information on pregnancy health tailored to Asian women along with other useful snippets on women's and children's health.

The application was showcased and presented with an Excellence Award at a special session during the Hospital Management Asia 2011, the premier learning conference for hospital managers.



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