

Thoughts on the 150th Anniversary of KK Women's and Children's Hospital - Historical Development of Obstetrics & Gynaecology in KK Hospital

KH Tan

This year of 2008, KK Women's and Children's Hospital (KKH) celebrates her 150th Anniversary. It is interesting to reflect on the history of Kandang Kerbau Hospital since 1858 as well as the origin of our society (the Obstetrical and Gynaecological Society of Singapore) in KKH and ponder the significant historical development of Obstetrics & Gynaecology in KK Hospital.

History of Kandang Kerbau Hospital

Kandang Kerbau Hospital, the birthplace of over 1.2 million Singaporeans, was the largest maternity hospital in the world from the 1950s to the early 1970s. It was named after the district where it was located.¹ The district around the crossroads formed by Serangoon Road, Selegie Road, Bukit Timah Road and Rochor Road was known in Malay as "Kandang Kerbau" ("Buffalo Enclosure", because in the old days, there was a buffalo pen in the locality). In Teochew and Hokkien, it was known as "Tekka" and in Mandarin as "Zhu Jiao" ("Below the clumps of bamboo", because in the early days, clumps of bamboo grew on the hillocks in the district). The hospital, commonly known as "KK" or "Tekka" served as the national maternity hospital of Singapore from 1924 to 1997.

KK Hospital was first built in 1858 to function as a general hospital segregated into two sections – one section for the Europeans (the Seaman's Hospital) and the other for the locals (the Police Hospital). In 1905, it expanded to accept poor female patients from

Tan Tock Seng Hospital. Subsequently, KK Hospital was also used to house female lepers and poor children. It eventually became the Pauper Hospital for Women and Children.

On 1 October 1924, led by Professor J S English, the first Professor of Obstetrics and Gynaecology (O&G), KK Hospital was converted into a free maternity hospital with 30 beds. On that momentous first day, five babies were born – three Malays, one Chinese and one Japanese. A new block containing 120 beds was completed by 1934. In that year, there were 2,575 births, a figure which continued to climb steadily over the years. Another new block was erected and opened in July 1940 bringing the total number of beds to 180. In that year 6,184 births were recorded.

During the period of Japanese hostilities in 1940-41, the Hospital became an Emergency General Hospital providing 500 beds. After the fall of Singapore and during the Japanese Occupation (1942-45), the hospital was used as a Chuo Byoin (General Hospital) for Japanese civilians and the local community. Dr B H Sheares, who became Malaya's first local Professor in O&G in 1951 and the Republic of Singapore's Second President in 1971, was its Deputy Medical Superintendent then. After the war, KK Hospital remained the Civil General Hospital until 1 July 1946, when it resumed as the only O&G hospital serving the country.

The post-war years witnessed high birth rates, with the number of obstetric deliveries increasing from 10,272 in 1948 to 39,856 in 1966. In 1955, a new Extension Wing (linked to the old Wing across Buffalo Road), at the adjacent site of 1 Hampshire Road was added, giving a total of 266 obstetric beds, 50 gynaecological beds and 26 premature nursery beds. This Wing, together with Farrer Park, occupied the former site of Singapore's first racecourse. The main building of this Wing, which housed the admission and 3 floors of labour wards, witnessed a record of just over one million births from 1955 to 1997.

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- Historical Development of Obstetrics & Gynaecology in KK Hospital

The record number of births or 'birthquakes' earned KK Hospital consecutive entries in the Guinness Book of World Records from the 1950s to the 1970s as the world's largest maternity hospital. The 1975 edition of the Guinness Book of Record revealed 'The largest maternity hospital in the world is the Kandang Kerbau Government Maternity Hospital in Singapore. It has 239 midwives, 151 beds for gynaecological cases, 388 maternity beds and an output of 31,255 babies in 1969 compared with the record "birthquake" of 39,856 babies (more than 109 per day) in 1966.'

KK Hospital also witnessed remarkable improvement in maternal and perinatal mortality rates, quite unmatched in the history of obstetrics of the world. The maternal mortality dropped dramatically from 760 per 100,000 births in 1930 to 7 per 100,000 births in 1987 and the perinatal mortality from above 50 per 1000 births in 1940s to less than 5 per 1000 births in 1990s, achieving world class standards.

KK Hospital was the centre of Singapore's pioneering feeder system of Maternal and Child Health Clinics (MCHC) with 66 MCHCs in 1964. It was also the centre of O&G and reproductive medicine research in South-East Asia and was world famous for research on trophoblastic disease (molar pregnancy) and prostaglandins (used for induction of labour). It was the birthplace of Asia's first IVF baby in 1983 and was Singapore's most important teaching and training centre for midwives and obstetricians & gynaecologists from 1924 to 1997.

Following the success of the nation's family planning programs in the 1970s, the total number of births at KK Hospital fell below 30,000 in 1973. The delivery load at KK Hospital declined further with the setting up of O&G units at Alexandra Hospital and Toa Payoh Hospital in the early 1970s.

On 1 April 1990, the KK Hospital ended its 132-year history as a government hospital and embarked on a new chapter in its history as a restructured hospital. O&G units at Alexandra Hospital and Toa Payoh Hospital were closed and transferred to KK Hospital. In 1997, KK Hospital moved to its new premises nearby at 100 Bukit Timah Road with 898 beds and was renamed KK Women's and Children's Hospital. Besides O&G, the new hospital assumed an additional role as the first Children's Hospital in Singapore, bringing together the pediatric medical services of the Singapore General Hospital, Tan Tock Seng Hospital and Alexandra Hospital. The Women's Hospital opened its doors on 10 March 1997; while The Children's Hospital admitted its first patient two months later.

It is interesting to note that old KK hospital premises at 1 Hampshire Road is now occupied by the Land

Transport Authority which had renovated the buildings beautifully to fit into the structure of the old hospital, with a wonderful decor. The name Kandang Kerbau came from an era where buffaloes were the main mode of land transport. Kandang Kerbau, with its lush vegetation and bamboos was the site where these valuable transport assets grazed. Kandang Kerbau has been also at the starting points and crossroads of two very important old roads of Singapore, Serangoon Road and Bukit Timah Road. It may be apt to say that Land Transport Authority is returning to its roots at Kandang Kerbau. It was believed that the bullock carts of the Colonial Department of Transport were kept in Kandang Kerbau, this is akin to that of an MRT train or bus central depot in the modern context.

Kandang Kerbau Hospital was marked as a Historic Site by the the National Heritage Board on 22 March 2003. The Historic Site Storyboard of KK Hospital was also unveiled by President SR Nathan on that occasion. KK was the place where more than a million Singaporean women, regardless of race, language or religion had come and laboured together within the same building and where the families of the million Singaporeans of different cultures had gathered to await the births of their loved ones. The marking of Kandang Kerbau Hospital as a Historic Site of Singapore bears testimony to the unique role it played as the most important birthplace of our multiracial nation.

Origin of the Obstetrical and Gynaecological Society of Singapore

The Obstetrical and Gynaecological Society of Singapore can trace its origins to the informal discussions and exchange of viewpoints among doctors who were interested in practising Obstetrics and Gynaecology and who used to meet on a regular basis at the Kandang Kerbau Maternity Hospital, in the early post war years.² Kandang Kerbau Maternity Hospital was founded in 1924 and grew to become the world's largest maternity hospital in the 1950s and 60s.

Obstetrics and Gynaecology, prior to the fifties was not given adequate consideration by the medical authorities and by the government. There were only a handful of specialists; Obstetrics and Gynaecology was mainly the responsibility of the General Practitioners. The frequent discussions and consultations that took place among doctors involved in Obstetrics and Gynaecology at the Kandang Kerbau Maternity Hospital laid the foundation for professional identity for those involved. These sentiments crystallized as the Obstetrical and Gynaecological Section in the Singapore Medical Association.

The Society was formed at the Inaugural Meeting held on the night of Wednesday 7 September 1960 at the Kandang Kerbau Hospital Lecture Theatre (the Kandang Kerbau Hospital Lecture Theatre subsequently became the venue of almost all the General Meetings of the society till 1997 when the old KK Hospital closed and the new KK Women's and Children's Hospital came into operation). The formation of the Society raised the academic profile of O&G in KKH and Singapore. The Society's office has been with the new Hospital till now. KK Women's and Children's Hospital is still very much the focal point of our Society and many of the O&G educational and academic activities of the Society are still conducted in KKH.

The Society now works closely with the College Of Obstetricians And Gynaecologists, Singapore (COGS). An important aspect in relation to this fact, has been the MOU signed between OGSS and COGS on 17 Dec 2004. This is a commitment by OGSS and COGS to work closely for the benefit of the fraternity, raising academic and professional standards in O&G.³

Significant Changes Over The Years Expanded Role of KKH

While KKH is renowned for her O&G services in the world and also a household name (KK or Tekka) in Singapore for maternity and gynaecological care, KKH has been more than a maternity hospital in her history.

KK Hospital started 1858 as a General Hospital and in 1905, it became the Pauper Hospital for Women and Children. Then it became a Maternity Hospital in 1924 and just before and during the war, it functioned as a General Hospital. After the war it resumed function as a Maternity Hospital with gynaecological services. In 1997, when KK Hospital moved to its new premises Bukit Timah Road, it assumed an additional role as the Children's Hospital. The services for women have also gone beyond O&G and now KK Hospital is functioning as a Women's Hospital as well.

Development of Postgraduate Training

In that colonial era, the Kandang Kerbau Hospital was not accredited for postgraduate training. To specialize in obstetrics and gynaecology one had to proceed to the UK and do a 21/2-year stint in some recognized training appointment. This was a hard sentence but there was no choice. A good example was in 1956 when Dr Tow Siang Hwa left for his postgraduate training in the UK and he was to remain for the next 33 months, away from my friends and family. It is worth while pondering what Dr Tow said to

O&G trainees later, "Consider it your good fortune to be able to do all your training in Singapore, and to obtain your higher qualification here as well. These privileges were not available to us in former years."⁴

In 1963, after much hard work by our O&G fraternity in Singapore, O&G Training Posts in KK Hospital was first recognized by Royal College of Obstetricians and Gynaecologists (RCOG) for MRCOG examinations. In the early 1970s, the MRCOG Part One Examination was held alternatively in March in Kuala Lumpur and in September in Singapore. A milestone for the O&G Fraternity in Singapore has now been achieved with the conduct of the First Joint M.Med (O&G)/ MRCOG Part 2 Oral Assessment Examination in Singapore on Monday, 8 May 2006. Singapore became one of the only two centers (alternate with Hongkong half yearly) outside of London to conduct the international MRCOG Final Part 2 Oral Assessment Examination.⁵ The examination venue was in KK Women's and Children's Hospital. All the three Singapore candidates (Dr Tan Eng Loy, Dr Khoo Chong Kiat and Dr Ng Ying Woo) who took this conjoint examination locally did well and passed, obtaining their MRCOG and M. Med (O&G) qualifications in one (historic) sitting. They did their training here fully, without going overseas. They passed their MRCOG examinations conducted in KK Hospital and many of the examiners for this examination were local and had been trained in KK Hospital. This is a vast difference compared to 1956, exactly half a century earlier.

The O&G Clerkship Programme of Duke/NUS Graduate Medical School (GMS) has been formulated in 2007, at the KK Women's and Children's Hospital. This initiative started another exciting development for our postgraduate O&G training with emphasis on clinical and translational research and KKH collaboration with Duke University from United States of America.

Setting up O&G Specialties

Singapore maternity care-providers evolved from the untrained traditional birth attendants, "bidans", and midwives, to trained and registered midwives, general practitioners and O&G specialists.⁶⁻⁷ In the early years of the 20th century, home deliveries were the mode and family planning and antenatal care were not in the layman's vocabulary. At that time, perinatal and maternal morbidity and mortality were high. Where previously a general practitioner (up to the 1960s) would usually take care of all aspects during pregnancy and delivery, there are now O&G specialists, and besides them other specialists like the neonatologist and obstetric anaesthetist to enhance the care of the mother and the baby.

Since early 1990s, O&G care has further evolved with the development of subspecialties within O&G through optimal consolidation of expertise and resources. Subspecialisation in Obstetrics & Gynaecology took place in 1990 within KKH with the formation of departments of Maternal Fetal Medicine, Gynaecological Oncology and Urogynaecology and Reproductive Medicine, replacing the previous departments of A, B and U (up to 1988) units which many veteran gynaecologists of Singapore are so used to.⁸

The O&G academic fraternity has also responded in tandem. The Chapter of Obstetricians And Gynaecologists, Academy of Medicine has been transformed to the College Of Obstetricians And Gynaecologists, Singapore (COGS) in 14 August 2004.⁹ COGS with its 4 sections (Gynaecological Oncology, Maternal Fetal Medicine, Reproductive Medicine and Urogynaecology) focused on continuous professional development and continuous medical education.

KK Hospital, in her mission to lead in excellent, holistic and compassionate care for women and children, has continued to support the development of various

subspecialties including Gynaecological Oncology, Maternal Fetal Medicine, Reproductive Medicine and Urogynaecology. It has achieved excellence care in many areas of O&G. These include the Integrated Labour Ward Risk Management Program which was the winner and the most outstanding project in the Patient Safety and Risk Management Category of The Asian Hospital Management Awards 2004¹⁰⁻¹¹ and also the Perinatal Team Of KK Women's & Children's Hospital which won the National Clinical Excellence Team Award 2008.

Conclusion

The history of the KK Women's and Children's Hospital is the story of how maternity and baby care in Singapore has progressed over the years. KK Hospital (KKH) first operated as a maternity hospital on 1 October 1924, but its humble beginnings and services for women and children, can be traced back to the many years before this inception. Postgraduate training and O&G subspecialisation have reached higher levels of excellence within KK Hospital, with support from the College Of Obstetricians And Gynaecologists, Singapore and The Obstetrical and Gynaecological Society of Singapore over the years.

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