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Special Article

Paediatric Urology in Thailand Boonpon - Weary Dunlop Scholarship Follow-up Visit

PA Dewan, PhD, MD, MS, BMedSc, FRCS, FRACS

OVERVIEW

Thailand is a tropical, mainly Buddhist country of over 60 million people, bordering the Andaman Sea and the Gulf of Thailand, adjacent to Burma, Cambodia, Laos and Malaysia. Paediatric Surgery is an important and relatively well developed specialty for the high proportion of children in the community. However, Paediatric Urology is a new subspecialty, with only one unit existing in the country. In order to further promote the development of surgery for the care of children with urological conditions, the senior staff at the Queen Sirikit Children's Hospital in Bangkok, and the senior staff who provide the current surgical expertise for such surgery in other centres, supported the application of Dr. Lantom Tonvichien to the Boonpong-Weary Dunlop Scholarship; Dr. Tomvichien then spent four months at the Royal Children's Hospital in Melbourne, in 1999. During her time in Melbourne she conducted research on pelviureteric junction obstruction and urethral abnor-

malities, which enabled her to recognise the role of research and to establish a clinical link that facilitated the subsequent visiting-professor program. Thus, with the assistance of the Royal Children's Hospital International and the Kind-cuts-for-kids Committee of the Australasian Association of Paediatric Surgeons, a one-week visit consisting of lectures and operative demonstrations in Paediatric Urology and anorectal anomalies, was arranged, and is the subject of this report.

The Paediatric Surgical Department at the Queen Sirikit Hospital consists of 100 surgical beds, 30 of which are for neonatal patients. The Department has access to five operating rooms and the staff see 50-70 outpatients per day. Paediatric Surgery is conducted by seven Paediatric Surgeons, one Orthopaedic Surgeon, one Plastic Surgeon, one Neurosurgeon and two Paediatric Urologists, plus trainees. The urology service has two days in the main operating theatre and one in the outpatient theatre, and is supported by the trainees in Paediatric Surgery.

The Paediatric Urology visit was in part sponsored by drug companies who provided meals for the large group who participated in the two days of lectures, including Paediatricians, Urologists, Paediatric Surgeons, surgical trainees in Paediatric Surgery and Urology, plus residents and medical students. Additional funding came from Bard and Ansell and contributors to the Paediatric Surgery in Developing countries fund.



Nurses discussing urinary catheter management



Group photo of those involved in the Seminar on cloacal anomalies

TEACHING

The teaching of Paediatric Urology was undertaken at a number of different levels and in a number of different forums. Staff from all levels of medical training and experience participated in the lectures; mainly Urology and Paediatric Surgical trainees and surgeons participated in the operative sessions. Teaching opportunities included ward rounds, operative demonstrations, lectures and Department based case-discussion meetings.

Ward Rounds: Generally brief encounters with senior surgical staff, essentially to ensure that Dr Lantom Tonvichien was comfortable with the expected post-operative management of the patients who had undergone surgery during the visit. An important part of the ward visits was the demonstration of the management of urological catheters and the nature and care of the dressings to the nursing staff. Case discussion of preoperative children, neonatal infants and patients with malignancy (neuroblastoma and rhabdomyosarcoma) also occurred during the ward rounds.

Operations: The following operations were conducted on six patients (2 females and 4 males), usually with two assistants, and always with a number of observers in the theatre. The value of the cases as teaching material was enhanced by the use of an overhead video-link camera, which was used to produce a permanent record for future teaching.

1. Hypospadias repair-first stage
2. Cystoscopy
3. Incision of Ureterocele
4. Pyeloureterostomy
5. Upper pole ureterectomy
6. Ureterocalycostomy
7. Cystoscopy
8. Urethral dilatation
9. Bilateral Ureteric reimplants
10. Epispadias repair - Cantwell/Ransley

Lectures: Lectures were conducted on two days; the first was effectively an all-day seminar with the formal presentations supplemented by lengthy question time. The audience for the first four lectures consisted of Paediatric Surgeons from several institutions, Urologists, Paediatricians and trainees in each of the specialties.

1. Rescue Hypospadias
2. Bladder augmentation and neurogenic bladder
3. Prenatal diagnosis and PUJ obstruction
4. Bladder outlet obstruction
5. Redo anorectoplasty and cloacal anomalies

Other Teaching: Morning conferences were with the Department of Paediatric Surgery at the Queen Sirikit Children's Hospital, tutorials took place in the breaks in theatre and an Inter-hospital conference covered the following topics.

1. Anorectal anomalies - morning conference
2. Wilms' Tumour - morning conference
3. Duplex renal pathology - tutorial



A ureterocalycostomy was performed on this boy with recurrent PUJ obstruction



Genital reconstructive surgery was demonstrated during surgery on these two boys



Staff of the Paediatric Surgical Department working on Urology cases



The rectourethral fistula in the patient on the left, and the radiology of a girl with a cloacal anomaly, pictured on the right, both generated much discussion, particularly the role of redo anorectoplasty.



A happy boy, despite the recent hypospadias surgery and the paint missing from his cot

4. Hydronephrosis - tutorial
5. Cloacal anomaly - inter-hospital conference

FACILITIES

The main surgical ward is an open plan structure with excellent lighting due to large windows, staff by well trained nursing staff. The standard of care is high and the facilities adequate. The beds are not new, but serve the purpose, and disposable goods are used less than in Australia.

In the operating theatre, facilities are generally very good. The lighting and camera equipment for endoscopy and video recording of operations were excellent, however some surgical supplies were unavailable. Important items that could be provided including guide-wires, a ring retractor, various urological catheters and powderless gloves.

The newly built auditorium was an excellent venue for the series of lectures and the seminar room used by the Paediatric Surgical Department worked well.

A notable aspect of the resources available was the high standard of the nursing staff skills. The ability to provide such superb assistance with the care of patients was made even more impressive by my lack of Thai; despite the relative lack of language communication there was very little "barrier" in the operating theatre or the ward.

FUTURE DEVELOPMENTS

Provision of equipment: There are aspects of the facilities available, such as the lack of a ring retractor in theatre, that may be able to be addressed by collaboration between the Department of paediatric

Surgery at the Queen Sirikit Children's Hospital and funding agencies. Other items of equipment would appropriately be identified by the Thai Paediatric Urologists and steps then taken to facilitate improvement in supply.

Teaching of Paediatric Urology: The videotapes produced during the visit will be of assistance in teaching and further developments will obviously occur as a result of the lecture series. It is intended that a further symposium be conducted in July 2001, in association with the Thailand Paediatric Surgical Association meeting.

Anorectal anomalies: As there is a large number of patients with this condition and some who have developed the unfortunate complication of a recurrent rectourethral fistula, it is anticipated that training in the management of complex anorectal and cloacal anomalies will become a significant part of any future training sessions

Facilitating training in Australia: Trainees are to be identified for attachment to Paediatric Surgical and Paediatric Urological Units in Australia, both for clinical and research training. In addition, support will be given to applicants to the Royal Australasian College of Surgeons scholarships, namely the Rohan Nicks scholarship, the Asian travelling scholarship and the travelling scholarship of the International Federation of Surgical Colleges.

CONCLUSION

A productive, collaborative teaching visit for Paediatric Urology and anorectal anomalies was conducted over a one week period. The development of close links between Thailand and the Australasian Association of Paediatric Surgeons Kind-cuts-for-Kids program will be of mutual benefit to children in both countries; further training is planned to occur both in Australia and Thailand.



Memorial dolls in the hospital grounds