A Report of Paediatric Surgical, Anaesthetic and Nursing Teaching in Bangladesh

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Contents

Background

Bangladesh has a population of 130 million, half of whom are children; therefore the teaching of the skills for Paediatric Surgery is important. As previously stated in reports related to Australasian visits, the extent of the problem in providing care to these children is made more enormous by the accumulation of previously untreated major anomalies. The focus of the Bangladesh Association of Paediatric Surgeons and of the training assistance provided by the visits from Australia is to improve quality of life rather than prolong suffering. Australasian assistance with the teaching of Paediatric Surgery and Urology began in 1993 with a visit funded by the International Federation of Surgical Colleges. The one-month training program was initiated by the IFSC with the assistance of the then Secretary, Mr E Durham Smith of Australia, and Professor Golam Rasul of Bangladesh. Teaching and surgery were conducted in both Dhaka and Chittagong and involved the trainees of the recently initiated Masters course in Paediatric Surgery. Four further visits have occurred in 1994, 1997, 1998 and 1999; the 1997 visit was funded as a follow-up to the awarding of Dr Tahmina Banu (a Bengali Paediatric Surgeon) with the Royal Australasian College of Surgeons 1996 Rohan Nicks Scholarship. Dr Kamal from Sylhet has since been awarded a similar scholarship for 1998, taking him to a Registrar post in Perth. More recently, Professor Shafiqul Hogue has also been awarded a scholarship to visit Melbourne for the May 2000 Annual Scientific meeting. The current visit of the Australasian surgical team was organised between the Royal Australasian College of Surgeons, the Australasian Association of Paediatric Surgeons and the International Federation of Surgical Colleges and members of the Association of Surgeons of Bangladesh through the Bangladesh Paediatric Surgical Association.

Paediatric Surgical training in Bangladesh has only been in existence in recent years and the number of senior posts is relatively limited, compared to the number of patients requiring treatment. Both the Universities and the Surgeons have recognised the need for development and all have taken action to improve the communal level of skills in diagnosis and treatment of Paediatric surgical illnesses. This work has been well supported by many people in Australia who are sympathetic to the needs of the Bengali children.

The burden of both clinical, work and the teaching load for the senior Paediatric Surgical staff in Bangladesh, is obviously enormous. It is a privilege for the Australasian Association of Paediatric Surgeons to have the opportunity to assist in this work, with the support of the International Committee of the Royal Australasian College of Surgeons and the International Federation of Surgical Colleges. The financial support from Rotary Clubs in the North East of Victoria, ROMAC, the Variety Clubs of Australia, multiple medical companies and nursing staff in Hospitals in Melbourne and Geelong is much appreciated.

This is the second occasion that an anaesthetist has been included in the team and the first time that a theatre nurse has participated. All the team members, including the photographer, were essential to the success of this year's training visit; in particular further training of both nursing staff and medical staff in surgical instrument care and theatre safety was initiated.

Much is yet to be learnt as to how best to co-ordinate the assistance to the Bangladesh Association of Paediatric Surgeons, and how to expand on the experience of having an Australian Theatre Nurse participate in the teaching program.

Paediatric Urology Facilities

In Dhaka, Paediatric Surgery is conducted in four teaching hospitals, the main facilities are provided by **Bangobandhu Sk Mujib Rahman University** (known as BSMMU) the **Dhaka Shishu Hospital** (DSH) and the **Dhaka Medical College Hospital** (DMCH)**.** The majority of the teaching and patient care during the project's two week period occurred at either BSMMU or DSH.

Bangabandhu Sheikh Mujib Medical University Hospital

BSMMU is a general hospital with 700 beds catering for adults and children. The main section of the hospital was built in 1973 and houses seven operating rooms spread throughout the hospital. The procedures we were involved with were carried out in one of the two Urology operating rooms, on the 10th floor. The work was assisted by the Assistant Professor, Registrars and Medical Officers of BSMMU, plus with willing organisational assistance of the theatre nursing staff. The nurse in charge of the urological operating suite, Rani Sova Biswas, is a registered nurse who has worked in the operating rooms of BSMMU for approximately 10 years. Rani works with three other nurses and one theatre assistant who helps with patient transport, cleaning and other menial tasks. The operating rooms are staffed between 0830 and 1400 each day excluding Friday, with out-of-hours nursing provided as an on-call service.

Department of Paediatric Surgery is extremely limited in ward space and theatre time with only one operating day per week and only a 16 bed ward. The ward infection control and perioperative management could be improved by the development and implementation of appropriate protocols, and greater involvement of the junior medical staff and parents in the monitoring of patients. Also, more extensive use of audit, to ensure the maximum good is achieved, which particularly relates to the management of patients with an obviously poor prognosis, such as advanced malignancies and organ failure. Certainly there have been improvements in these aspects of patient care since the first visit in 1993.

BSMMU Operating Suite Design and Theatre Management Training

The operating suite consists of a series of change rooms, storage rooms, a 'reception area', plus two operating rooms, each with an attached scrub and set-up room. Adjacent to the operating rooms is a small room with an instrument boiler, a large kettle and burner for providing sterile water, and a pressure steriliser.

Boiler, Kettle, Pressure Steriliser BSMMU

The Operating suite has no hot running water for scrubbing, washing instruments nor is there ready access to steam for sterilisation.

The Surgical Set-up

Presterilised sets of equipment are provided from a CSSD that is located on another floor. General instruments are limited with a few emergency sets, such as a vascular set; the Paediatric Surgical instruments were provided by the visiting surgeon. Instruments are recycled by soaking in sterilising solution (Cidex - which is in short supply and possibly not fully active) or boiled.

In the set-up area the nurses set up the trolley by using cheatal forceps, dispensing drapes and gauze from multi-filled canisters and selecting instruments from a prepacked set.

Multi filled canisters

Instruments from a 'sterile set', which remain on the bench during the day, are used to add to the set supplied at the start of the procedure, and are dispensed as necessary.

Sterile Instruments

Sterile water is provided, when required, in a presterilised bowl from a kettle that remains boiling during the day.

Kettle containing 'Sterile' water

Scrub Personnel

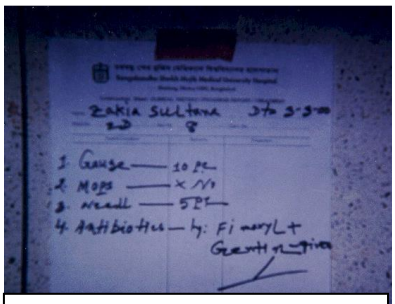
Medical staff in the operating theatre, in addition to being surgeons and assistants, participate in a role always taken by an instrument nurse in Australia. Usually two medical staff were scrubbed-in with the visiting surgeon, one as the first assistant and one as the instrument "nurse" as well as second assistant. It would appear this arrangement relates to the lack of training and experience of the registered nurses. Although one of the medical staff is primarily assigned the role the 'Instrument Nurse', work often rotates between the assistants. It is difficult for the junior staff to both learn the surgery and the work of the instrument nurse, making the process of performing an operation more difficult for all. Thus, the junior medical staff are not fully aware of the principles of being a scrub nurse. Infection control, care of instruments and safe handling of instruments during surgery could improve which would expedite procedures and prevent injury.

Surgical Count

A process is not in place in the theatre to enable the counting of gauze, packs, needles or instruments used during surgery. Swabs and packs are dispensed with cheatal forceps to the sterile set up from the sterile metal containers. Due to the lack of

experience with the more complex paediatric urology procedure performed, there was a lack of consistency in the number of swabs provided at the time of the instrument set-up. But, also the number of swabs added varied, as did the distribution of their addition to the operative field throughout the operation, further increasing risk of leaving a swab or an instrument in the patient.

The provision of copies of operating suite standards and fundamentals of operating room nursing will help to give educational follow-up to the support and training provided by Sister Margaret Costa during this visit. Sister Costa took on the challenge of learning to count to 10 in Bangla to facilitate training in that aspect of theatre safety. The importance of dispensing gauze in regular multiples was also discussed.



Count Record BSMMU

Disposal of rubbish

All operating room rubbish, including all used paper, swabs, packs and sharps, is placed into plastic containers for disposal (right). At the completion of the procedure, and often part-way through an operation, rubbish is collected from the containers and discarded by the theatre assistant. Problems arise from the lack of use of gloves and potential removal of swabs prior to the completion of the case. These were remedied by discussion and example, and the deployment of empty drink bottles, with a hole cut in the side, as sharps containers. The nurses and medical staff were receptive to placing all sharps in the container, for later disposal (as illustrated on page 11).

Use of consumables

As the cost of consumables is high, 'single-use' items are often re-used. For example, surgical gloves are washed, hung out to dry and resterilised, unused gauze or packs are removed from the 'sterile field' with cheatal forceps and returned to the canister for later use. To facilitate the re-use of various pieces of equipment, including guide wires, dilators, ureteric catheters, diathermy handles, surgical instruments and other consumables are soaked in Cidex. Once 'sterile', they are rinsed in a single bowl of 'sterile' water. Unfortunately, items placed in the Cidex are wet, which decreases effectiveness of the antiseptic, and monitoring of the efficiency or dilution of the Cidex is non existent. Also, the supply of Cidex is limited, thus the efficacy of the sterilization process is questionable – making the good results of surgery even more amazing!

The adaptability of the Bengali staff is note-worthy, particularly in the ways they enable the often-necessary re-use of 'single-use' items. An example is the Urology giving set with its copper tube ends fixed with attached tubing for insertion into the fluid containers (right). Many items opened and not used, in Australia, would be invaluable for Bangladesh.

Equipment

BSMMU Urology operating rooms are equipped with a small amount of recently acquired equipment such as a Camera and Monitor, Olympus light source and an Excaliber diathermy. Although, sutures, Paediatric instruments, a ring retractor, and a Paediatric cystoscope are lacking. A high standard of computing for the anaesthetic department does however exist.

Dhaka Shishu (Children's) Hospital

Dhaka Shishu Hospital is a 305-bed institution that opened its current premises in 1977. There is a well-developed service in Paediatric Surgery, providing service to mainly fee-paying patients in 50 in-patient beds. The hospital also generously assists those in need, but essentially only children with general surgical and urological conditions. Throughout the hospital are mobiles and artwork, which provide a cheery appearance to the paediatric ward.

Dhaka Shishu (Children) Hospital Operating Suite Design and Theatre Management Training

There are three operating rooms, in an area of the hospital that also houses the recovery room, the sterilising department and the laundry. There is one scrub sink located at the end of a corridor that is used for staff for all theatres. As for BSMMU, there is no hot water or steam for use in the operating rooms.

Staffing

The Nurse-in-Charge of the operating suite is Aloka Halder, a very experienced operating-room nurse who has been employed by Shishu Hospital for 15 years. Her experience in perioperative nursing has included training and employment in both Japan and Saudi Arabia. One nurse is allocated to each operating room, where he or she functions as the scout. In addition, there are several helpers who float between rooms performing a variety of tasks, including cleaning. As for BSMMU, the medical staff undertake the role of instrument nurse, in a manner similar to most other hospitals in Bangladesh.

The Operating Rooms

The operating rooms have a setup room attached, which is an area of approximately eight square metres, contains a cupboard with instruments, an instrument boiler, containers with Cidex for soaking and an urn to provide 'sterile' water. The room is both hot and humid, with temperatures reaching up to 35°C.

Shishu Hospital Setup Room

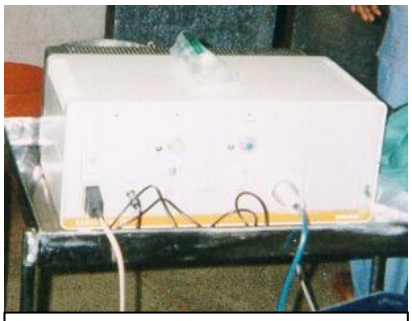
The air conditioning in the operating room consisted of an air conditioner mounted in the wall. Monitoring of the room temperature was by the way of a thermometer attached to the wall next to the air conditioner.

Air Conditioning Unit at Shishu

The sterile containers of gloves, drapes and gowns (one of each) are located in one of the operating rooms and are accessed in that room for procedures performed elsewhere, adding to the already busy traffic in the theatre. Despite the previous donations, and new material having recently been bought for production of new gowns, many of the sterile clothing had holes or tears and had to be discarded. Similar to BSMMU, instrument set-ups for all the theatres were prepared in the adjacent room, then wheeled to the theatre in which they were required. Also, the same technique of instrument-trolley set-up using cheatal forceps was used, with the main method of 'sterilization' being Cidex. Further donations of drapes and gowns from Australia would be appropriate.

Equipment and Consumables

Equipment and consumables available were less satisfactory at Shishu than that of BSMMU. Hypodermic needles were recycled and reusable needles were provided on instrument set-ups. The diathermy machine is approximately 25 years old and, prior to the donation of the Variety Clubs cystoscope only one resectoscope was available for all urological procedures. There is no camera or monitor for cystoscopic procedures. Gloves, ureteric catheters, dilators are all re-used.



Diathermy Machine

Surgical Count

As with BSMMU a surgical count is not recorded, however, during the time of the visit the Charge Nurse implemented the dispensing of gauze swabs in multiples of five and a counting system. As for BSMMU, gauze swabs and packs have no x-ray detectable thread and have little absorbency, unless they are made wet prior to moping of blood from the wound. Rubbish disposal and instrument care are aspects of theatre staff training that could be addressed by in-service education sessions, both at BSMMU and DSH.

The Laundry

The laundry is located across the corridor from the operating rooms and consists of a series of large concrete troughs as shown in the photo, with the laundry attendant washing the theatre linen by hand. At the completion of the day the laundry is hung out on the verandah outside the theatre or laid out on the floor of an operating room to dry, a process for which improvements may be possible.

Paediatric Surgical Teaching Program

There is an active Surgical Masters program in both BSMMU and DSH, that are unfortunately, to some extent run independently, obviously unification of the training program for Paediatric Surgery would facilitate more broadly based training, accreditation and manpower planning. The teaching conducted during the visits from Australia is planned to align with the needs of the visited institution and the expertise of the visitor. It became more apparent on this occasion that the lecture program should be open to all those interested in Paediatric Surgery and Paediatric Urology both at the trainee and consultant level, not only in Dhaka but in other centres. The program development is best to involve the executive of the Society of Paediatric Surgeons in consultation with the staff at the institutions and the visitor. A profile of appropriate cases could then be made available with the cases being screened prior to the arrival of the visiting Professor. The schedule of lectures and the topics could be widely advertised and the appropriate back-up of theatre facilities for the demonstration cases arranged; the productivity of the teaching and clinical program would be improved particularly the access of the trainees to the educational material. Other subspecialties such as Anaesthesia and Radiology could then be more involved in both the teaching and service delivery. The specialty of Anaesthesia has been previously involved and there would be an advantage to adding more formal uroradiological training to the program.

Surgical Teaching Sessions

Teaching activities focused on the trainees in Paediatric Surgery at both the BSMMU and Dhaka Shishu Hospital. Lectures to the Bangladesh Urology Society were also a significant opportunity to reach a large and important audience: a total of 11 lectures and four tutorials were presented by Professor Dewan on the following topics:

	Lecture Title	***Date***	***Location***
1.	Neurogenic bladder	29/2/00	BSMMU
2.	Vesicoureteric Reflux	1/3/00	BSMMU
3.	Advances in Hypospadias	4/3/00	Urol Soc
4.	Paediatric Bladder Dysfunction	4/3/00	Urol Soc
5.	PUJ Obstruction	6/3/00	DSH
6.	Renal Investigation	6/3/00	DSH
7.	Distal Hypospadias	7/3/00	DSH
8.	Proximal Hypospadias	7/3/00	DSH
9.	Urethral Pathology	8/3/00	DSH
10.	COPUM	8/3/00	DSH
11.	Acute Scrotum	9/3/00	DSH

	Tutorial Title	***Date***	***Location***
1.	Ureteric Reimplantation	29/2/00	BSMMU
2.	Obstructive Urology Mx	4/3/00	BSMMU
3.	Operative Paediatric Urology	3/3/00	BSMMU
4.	Paediatric Uroradiology	6/3/00	BSMMU

The lectures at BMSSU were conducted in the late afternoon following the operating sessions: two lectures in Paediatric Urology were given as part of the Bangladesh Urology Society meeting. At BSMMU, outpatients were usually seen between cases to maximize the exposure of the trainees to clinical material for discussion. Overall 15-20 surgical staff and trainees were in attendance both from the Department of Paediatric Surgery and Urology and trainees from other institutions. The attendance

at the lecture was however disappointing. Lectures at the DSH were mainly conducted after the operative sessions, with good attendance of the trainees and recent graduates. An improvement in this visit was the confining of activity at BSMMU to only ward rounds during the days spent at DSH. This arrangement gave more time for lectures at DSH, but allowed for post-operative management teaching of some of the trainees. In all, 30 different surgical trainees and staff were involved in the teaching program, much of which occurred during the ward rounds and operative sessions. It would be possible for the attendance at the surgical lectures to be improved with closer involvement of the Paediatric Surgical Society in the arrangements for the visits.

The management of urological catheters, the use of the Denis Brown ring retractor, uroradiology, the investigation and management of urinary tract obstruction, the plan of care of bladder exstrophy patients and techniques of complication reduction were particular focus points of the surgical teaching. The development of percutaneous nephrostomy tube insertion (with equipment left for subsequent use) and the early removal of post-pyeloplasty nephrostomy tubes were particularly note-worthy achievements.

The boy on the left has had two percutaneous nephrostomy tubes inserted, with 3L of urine drained. The girl on the right had early removal of her post-pyeloplasty nephrostomy facilitated by demonstrating drainage at low pressure. The subcutaneous cannula is seen near her left shoulder, which allows a safe technique for systemic administration of narcotic, was a method introduced by Dr Brownhill.

Training in Anaesthesia

The teaching by Dr Brownhill related to the needs of Paediatric Urology patients, in particular the timely administration of prophylatic antibiotics, the use of caudal in 21 instances (see page 11), local analgesia, fluid management of children having urological operations and a safe technique of post operative narcotic administration (see above figure). Dr Brownhill has extensive experience in Obstetric Anaesthesia, experience of which he was also able to share with the trainees in both BSMMU and DSH. His input into the post-operative pain and fluid management to the surgical trainees was a further significant contribution. Infant anaesthesia was demonstrated during operations on patients one year of age or less, particularly temperature control.

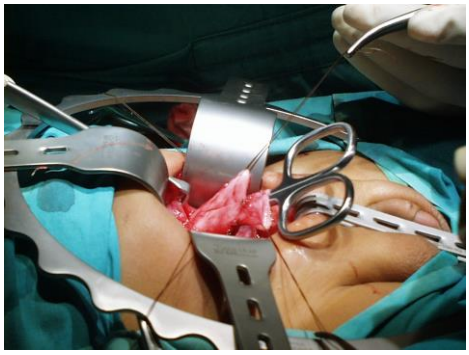
Generally, two trainees were involved in each of the anaesthetics and a lecture was given on Neonatal and Paediatric Physiology and its relevance to Paediatric Anaesthesia.

Nurse Teaching

Margaret Costa is a Senior Nurse who was able to observe and identify areas of general and specific theatre management that could be improved which she implemented by suggestion and example. The development of a system for counting

instruments and swabs, the introduction of a sharps container system and identification of multiple items that could be collected in Australia were probably the major contributions. The nursing staff obviously enjoyed the opportunity to interact with a person with such experience and knowledge who could easily provide simple solutions to important problems. Further benefit was gained by her interaction with junior medical staff, particularly on their role as the scrub nurse.

Dr Ken Brownhill demonstrates the use of caudal anaesthesia at BSMMU, after which Professor Paddy Dewan demonstrates the use of the cystoscope, donated by the Variety Clubs, on a boy with urethral obstruction.



The Denis Brown ring is seen in place. This instrument is essential for Paediatric Urology to be conducted safely. Its use was demonstrated to multiple trainees and was donated to the Dhaka Shishu Hospital, intended for temporary use in BSMMU.

The nursing staff at BSMMU unwrap some of the “donations in kind”, then demonstrate the use of the adapted sharps disposable system which was conceived and taught by Margaret Costa.

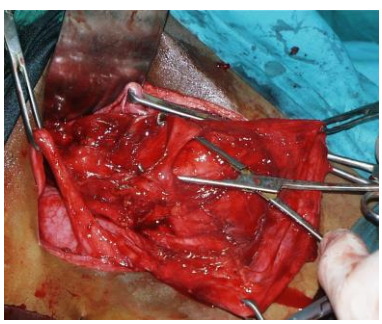
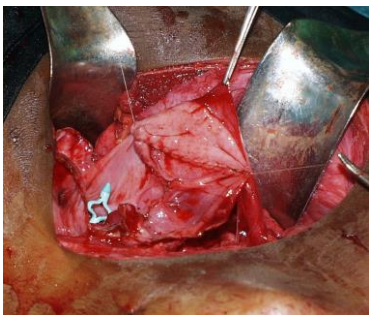
Clinical Work

Fifty-four consultations were conducted during the visit most of which were as part of impromptu or formal outpatient sessions; 32 of the patients were seen in BSMMU and 22 in DSH. Ward rounds were usually conducted as a teaching exercise with the junior surgical staff; in all, 14 ward rounds took place, two of which were at the DSH and 12 at BSMMU.

During the theatre sessions, a total of 19 patients had a total of 35 operations over 60 hours of theatre time which covered 15 theatre sessions. The operations performed during the 10 days of the visiting Professorship included:

	Operation	*Date*	*Pathology*	*Hospital - Number*
1.	Anterior Osteotomies	3/1/00	Bladder exstrophy – epispadias	BSMMU - 327/4
2.	Anterior Osteotomies	3/7/00	Bladder exstrophy	DSH - unk F
3.	Anterior Osteotomies	3/7/00	Bladder exstrophy	DSH - unk M
4.	Appendicectomy	3/5/00	Crossed fused ectopia	BSMMU - 319/4
5.	Bladder closure	3/7/00	Bladder exstrophy	DSH - unk F
6.	Bladder closure	3/7/00	Bladder exstrophy	DSH - unk M
7.	Calycocalycostomy	3/5/00	Crossed fused ectopia	BSMMU - 319/4
8.	Cohen - bilateral	3/2/00	Ureter ectopia +R-diverticulum	BSMMU - 231/4
9.	Cystoscopy	3/8/00	Epispadias-exstrophy	DSH - 6242/7
10.	Cystoscopy	3/2/00	Hydronephrosis	BSMMU - 235/9
11.	Cystoscopy	3/1/00	Hydronephrosis - bilateral	BSMMU - 319/4
12.	Cystoscopy	3/4/00	Neurogenic bladder	BSMMU - 173538
13.	Cystoscopy + fulguration	3/8/00	COPUM	DSH - 6243/8
14.	Cystoscopy + fulguration	3/3/00	COPUM	BSMMU - 609/6
15.	Cystoscopy + traumatic disrupt	3/6/00	COPUM	DSH - 5540/13
16.	Epispadias repair	3/8/00	Epispadias-exstrophy	DSH - 6242/7
17.	Epispadias repair	3/1/00	Bladder exstrophy - epispadias	BSMMU - 327/4
18.	Hypospadias repair - free graft	2/29/00	Hypospadias	BSMMU - 17713
19.	Laparotomy	3/6/00	Meconium ileus	DSH - unk F
20.	Laparotomy - ileostomy	3/4/00	Rectourethral fistula	BSMMU - 340/1
21.	Nephrectomy	3/3/00	COPUM	BSMMU - 332/2
22.	Nephrostomy - PERC - L	3/2/00	Hydronephrosis	BSMMU - 235/9
23.	Nephrostomy - PERC - L	3/1/00	Hydronephrosis - bilateral	BSMMU - 319/4
24.	Nephrostomy - PERC - R	3/1/00	Hydronephrosis - bilateral	BSMMU - 319/4
25.	Ureteric Plication	3/2/00	Ureteric diverticulum	BSMMU - 231/4
26.	Pyeloplasty - L	3/3/00	Hydronephrosis	BSMMU - 270/4
27.	Pyeloplasty - L	3/5/00	Hydronephrosis	BSMMU - 235/9
28.	Pyeloplasty - R to lower L	3/5/00	Crossed fused ectopia	BSMMU - 319/4
29.	Ureterocystoplasty	3/3/00	COPUM	BSMMU - 332/2
30.	Urethral dilatation	3/4/00	Neurogenic bladder	BSMMU - 173538
31.	Urethral dilatation	3/5/00	Urethral stricture	BSMMU - 329/6
32.	Urethral dilatation	3/2/00	Urethral stricture	BSMMU - 329/6
33.	Vaginostomy	3/6/00	Vaginal atresia	DSH - unk F
34.	Vesicostomy closure	3/8/00	COPUM	DSH - 6243/8
35.	Wolf graft	3/2/00	Penile trauma	BSMMU - 224/6

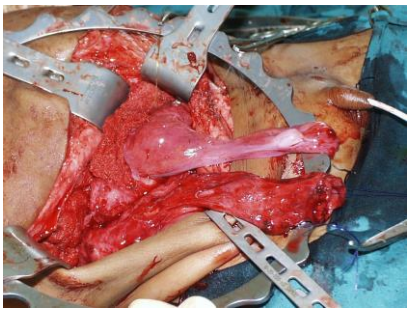
Operative Cases


The unusual anatomy of this boy was excellent teaching material. His crossed fused renal ectopia was associated with huge distension of the ectopic left system, to the extent that his chest became deformed. The pictures show the huge pelvis of the left kidney, the near to complete anastomosis between the two kidneys and the right ureter, with the appearance of his abdomen subsequently.



The views shown here are of three of the four children who had surgery for the bladder exstrophy-epispadias complex, a condition that results in the child being born with the bladder opened onto the anterior abdominal wall. The first is of an infant about to have his bladder closed, the second a boy who has had his penis repaired to improve his appearance and his continence. The third is a baby girl who has just had her bladder and abdominal wall repaired.

The abdomen of a boy with “prune belly syndrome”, which is associated with the hugely dilated renal tract, shown in the cystogram above (middle picture). The third picture is part way through an operation that repaired his renal tract, his abdominal wall and placed both testes in his scrotum; the right testis and mobilised right ureter are seen running over the ring retractor.

Donations in Kind

As mentioned in previous reports, an appropriate system for delivery of Australia donations-in-kind would assist with overcoming some of the resource limitations. The surgical equipemnt provided during this visit included some anaesthetic supplies, urology equipment and theatre supplies of sutures and gloves, all of which were made available by the donors. It would seem appropriate for the Bangladesh Hospitals to identify a range of items which are in short supply which could be made available from items which fall into the following categories:

Discarded because of out-of-date policy	**Unable to be resterilised in Australia**	**Items which are able to be reused in Bangladesh**
Surgical gloves	Open gauze and packs	Diathermy handles + tips
Sutures	Open suction tubing	Unsterile surgical gloves
Needles + Cannulae	Ureteric catheters	Endotracheal tubes
Intravenous sets	Guide-wires + dilators	Bandages
Urological equip		
Endotracheal tubes		

This list could be expanded through consultation between the users and those with the supplies. This process would be facilitated by transport of the items through the donations-in-kind network of Rotary International, the waving of any payable duty and quality control feedback from the Bangladesh Hospitals. Mrs Elizabeth Brown an Australian nurse currently resident in Dhaka has offered to assist with the early development of this mechanism and a number of institutions in Melbourne are already actively collecting a small amount of supplies: the collection system should be expanded.

The donation of a cystoscope and Denis Brown ring for the treatment of Paediatric Urology patients will hopefully improve the standard of care for these children. Further such of minor equipment donations would be of great value.

Where to from here?

It would appear that the way forward for Australasian Paediatric Surgery and Nursing to assist Bangladesh is in the hands of the Bangladesh Society of Paediatric Surgeons. The training program would need to be embrassed by that organisation and coordinated to include as many trainees as possible, with aims and objectives that satisfy the training requirements of the trainees. The education of both the nursing and medical staff in instrument handling and safety could be conducted in parallel.

Fund raising to provide money to help fill the huge gap in the availability of even simple equipment is, and should be, a priority of the Australasian Association of Paediatric Surgeons, the International Federation of Surgical Colleges, through the Kind-cuts-for-Kids committee of the AAPS.

In particular the subsequent visits should be conducted under the auspices of the Bangladesh Society of Paediatric Surgeons and coordinated to provide systematic input into the training program through a series of lectures, clinics and operative demonstrations. Participation of the visiting surgeon, and in particular the counrty coordinator for the Australian Association of Paediatric Surgoens, in curriculum development and the examination process may also be an advantage to the development of International recognition of the Bangladesh Paediatric Surgical Masters program.

Thanks

Again, many people have made the Paediatric Surgical, Anaesthesia and Nursing visit to Bangladesh productive and enjoyable, not least the young men and women who are the trainees in Paediatric Surgery, Anaesthesia and the dedicated nursing staff; particularly for their willingness to learn. The Surgeons, Anaesthetist and administrative staff at the BSMMU and DSH helped with the organization of daily events, usually through the junior staff from BSMMU and DSH: Professor Shafiqul Hogue was particularly devoted to the visit being productive. We are also indebted to the Bangladesh Association of Paediatric Surgeons, through Professor Zaman, for highlighting how we would be able to enhance the productivity of subsequent visits.

Many have contributed to the provision of equipment and other funding for the visit. Nursing staff from various hospitals in Melbourne and Geelong have collected items for theatre use. Also, the Rotary Clubs of Appin Park, Benalla and Wangaratta participated in fund raising, the Variety Clubs of Australia provided the Denis Brown ring and the cystoscope and money for sutures, ROMAC supported the travel costs with the assistance of Malaysian Airlines, the United Nations Association of Bangladesh donated 5,000Tk for the treatment of children (DSH), as did the Bangladesh Women's Association (BSMMU). Also various companies provided equipment; Ansell, Bard and Tyco industries in particular; BSMMU provided funding for the accommodation in Dhaka.

The staff in BSMMU and DSH gave their time generously, as did the team of Australasian visitors.

The limited resources available to treat Paediatric Surgical patients are reflected in this photo. The hand held light was required to be able to examine the patient during the evening ward round.