

Albania

Paediatric Urology and Radiology Teaching Program

14th June – 21st June 2011

Professor Paddy Dewan and Dr Padma Rao

A project of the Kind Cuts for Kids Foundation, Australia,
the
Australian Albanian Community
and
the Qëndra Spitalore Universite, Nënë Tereza, Tiranë



Introduction

Albania both have a long, rich history complicated by having recently emerged from a communist dictatorship. Therefore, there are challenges in establishing infrastructure and manpower to ensure adequate care for children needing management of paediatric surgical problems, beyond that experienced in Australia.

To reiterate for some who received a report of the last visit, we revisit the starting of the project: A chance meeting in 2009, between John Taip and Paddy Dewan, has made a dream come true. Albanian children have previously come to Melbourne for complex surgery, surgery that the Kind Cuts for Kids Foundation has performed in developing countries around the world, with the concurrent purpose to capacity build through education. Professor Paddy Dewan suggested that a team could go to Albania, a suggestion that had been made in many directions, many times. This time the snowball started to roll. Reg Karafili and Sezar Jakupi became involved, and almost overnight, trips to both Kosova and Albania were organized, which involved the specialties of Paediatric Surgery, Anaesthesia and Radiology, in both centres. This visit has been a return to Tiranë to further assist with complex cases.

The Australian-Albanian community has taken up the challenge of ensuring the success of the mission, having raised the bulk of the funds during a charity dinner, in March, and a follow-up celebration dinner in May. The funds have been administered, and the visit managed, through the Kind Cuts for Kids Foundation.

The second visit to Albania was organised with the help of many people, particularly the members of the planning and manpower committees of the Kind Cuts for Kids Foundation, Dr Dritan, Professor Heta and Dr Nandi, in Tiranë, and Mr Sezar Jakupi in Melbourne.

The Foundation aims are to teach, treat and capacity build. The expectations have been more than met during the two visits to the Balkans, reaching well beyond what we hope to achieve. Australian medical staff have had the privilege of working with skilled Balkan's colleagues who have graciously sort assistance with complex cases, and we have all learnt.



Orges reassured us that he had no pain just 4 days after he had a major operation to repair his urethra. Years earlier he had a fractured pelvis during a car accident. Shortly after the photo was taken, his mother was in tears while saying goodbye; tears of gratitude and joy.

Surgery

In Albania there have now been two visits of the Kind Cuts for Kids Foundation, with 25 children having been reviewed, put to sleep and operated on through the combined efforts of the collaborative teams. There were also 11 children seen in Kosova in April. Fourteen were treated in Albania in June, 8 patients were treated for the first time during the more recent week.

Dr Rao participated in the investigation of 45 patients not treated by the surgical team, but referred to the radiology department during the Kind cuts for Kids Foundation visit to Tiranë, bringing the total number of patients to benefit from the education and treatment program to 59 in Albania and 70 in the Balkans.

A shorter visit on this occasion, the features were the follow-up and additional surgery to those with complex problems. The Australian/Albanian team performed more than 38 hours of operating, with the participation of 7 different surgical assistants, most of whom had not had the opportunity to be first assistant in April. Professor Heta, the head of the Paediatric Surgical unit was present for all operations at the Mother Therese Hospital, helping to deliberate on all major steps. Several nurses worked as either the scrub nurse or the scout nurse during the 11 anaesthetics, which was a similar number of cases to the previous visit.

Of the 14 patients reviewed, all those requiring surgery needed complex operations, again indicating the very adequate pre-visit screening process in Albania. The theatres sessions included a total of 31 procedures for the 11 children taken to theatre for operations. The nursing staff, both in the ward and theatre, greatly assisted with the care of the children after their surgery. Some are shown in the photos below.



The surgical, radiology and nursing teams in theatre and the ward.

Diagnoses

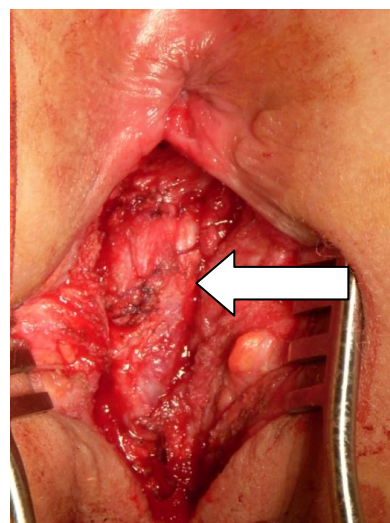
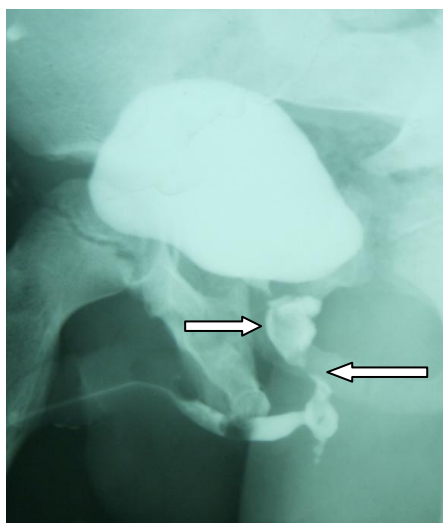
In addition to the patients who were only reviewed radiologically, the following diagnoses were treated - Bladder exstrophy, inguinal hernia, COPUM, renal failure, duplex kidney with ureterocele, single system ureterocele, ambiguous genitalia, hypospadias, septic arthritis, deficient perineal body, cloacal anomaly, urethrolithiasis, chordee.

Operations

Bladder exstrophy closure, circumcision, cystoscopy (2), urethral diverticulectomy, exploration of ureter, inguinal herniotomy (2), hypospadias repair (2), ureteric Mitrofanoff, Nesbit procedure, perineal body repair, anterior pelvic osteotomy (2), ureteric reimplant (5), ureterocelelectomy (3), ureterolithotomy, urethral mobilization chordee release, urethrolithotomy, urethroplasty, urethrourethrotomy, urodynamics (2), Wolff graft.



Surgery for a 12 month old child with bladder exstrophy (left picture shows the inside of the bladder), resulted in successful closure (right, above), was enabled by cutting part of the bony pelvic ring at the front of the pelvis.



Orges, seen earlier, had a stone in the posterior urethra (top left arrow), above a urethral stricture (bottom left arrow) for which he had an operation that is pictured, showing the joining of the urethra across the narrow portion (right arrow).

Case studies

Irsilda had an operation in Melbourne in 2002 and a follow-up procedure Tiranë in April this year. It was expected that an additional minor procedure would be necessary, which was embarked upon with confidence by Irsilda (below right) and her family, and had the expected good result. Irsilda will now be encouraged to participate in the ongoing care of both her bladder and her bowel, aided by the parents and the Albanian medical staff being involved in the discussion in the few days she remained in hospital after the surgery. The photos show Irsilda after her surgery in April and before her operation in June. She spent 5 days in hospital and virtually no time away from her family.



Margi's dad explains the impact that his daughter's illness in terms of her suffering with infections and in terms of the cost of the treatment. A dedicated father, the tattoo on his arm was crafted on the day she was born. He works in the tourist industry, thus drew the analogy of the antibiotic treatment being equivalent to cost of two buses! Margi had the only the second ureteric reimplant operation in Albania during which no catheter was left in the bladder, resulting in her being able to return home 48 hours after the surgery. The first was on the day the KCFK's team arrived in Albania. Margi's long stay was to reassure both the family and the Albanian team that all was well. Margi's cousins were happy she stayed in hospital long enough for them to visit (below right)!



Surgical lessons

There were many surgical teaching points that benefited both the patients and the surgeons, and the new front line junior surgical team, some of the techniques that need to be imparted were able to be focused on because of the increase in teaching manpower that comes with such a visit including:

1. Foreskin graft distal penile urethra repair.
2. Trauma minimizing skin closure.
3. Inguinal hernia repair via other incisions.
4. Urodynamic studies.
5. Bladder function charting.

Techniques that were new to the Paediatric surgical unit, thus adding to the surgical lessons were, with education and clinical changes being as lively as suggested in the photos:

6. Ulanbataar hypospadias repair.
7. Ureteric reimplantation without post operative catheters.
8. Urethral mobilization chordee release.
9. Posterior approach (Pena) urethral stricture repair.
10. Caudal anaesthesia.
11. Intravesical local anaesthetic for bladder spasms.
12. Isolate anterior pelvic osteotomies in bladder exstrophy.
13. Ureteric Mitrofanoff for intermittent catheterisation.
14. Photography as a diagnostic tool.
15. Perineal body reconstruction in anorectal anomalies.



Enthusiastic students, teachers and student teachers formulate solutions for complex patients.

Radiology

The current visit was a follow up of assistance with the clinical load and teaching that was part of a combined radiology and surgery visit in April. The aims were as on the first trip and deserve reiterating.

1. To perform and/or oversee the radiological investigations on the patients who were:
 - a. Selected for surgery.
 - b. Usual referrals to the department
2. To further educate local radiologists on the specifics of performing radiological procedures on children, particularly the appropriateness of certain investigations, the performance of procedures, and radiation safety in children.
3. To assess the equipment and processes currently in place, particularly as regards to their suitability for paediatric applications, and to make recommendations on future changes and equipment needed.

The Mother Teresa Hospital is a large 1200 bed children's hospital, with a radiology department headed by Dr. Kramer. The contact radiologists for the visit were Dr. Durim Cela and Dr. Besa Hidri. A number of studies were performed as part of the KCFK's visit. Once again the collaboration with the Albanian team was productive and collaborative.

The radiological investigations performed in consultation with Dr Rao included:

- | | |
|-----------------------------------|------|
| 1. Abdominal ultrasound | - 23 |
| 2. Genitourinary tract ultrasound | - 21 |
| 3. Joint ultrasound | - 4 |
| 4. Head + Neck ultrasound | - 3 |
| 5. Retrograde urethrogram | - 1 |
| 6. Barium swallow | - 1 |
| 7. Micturition cystourethrogram | - 1 |

The fluoroscopy was disadvantaged by having no image store capacity and a lack of comforts in the screening room. The Toshiba Powervision 6000 ultrasound machine was limited by the provision of thermographic images only. The CT scanner lacked the ability to print images, with reports being generated from the consul. There was no PACS system and reports were hand written.

The three radiologists who work in the Radiology department are all either full or part time paediatric radiologists, but the department only functions until 1300. Although there is no dedicated paediatric radiology fellowship in Albania itself, the radiologists have all spent variable amounts of time in centres overseas, such as USA and UK. in addition, they

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regularly try and attend Radiology conferences, such as the European Society of Paediatric Radiology or the European Congress of Radiology. Thus, there is a high level of knowledge and understanding which facilitated excellent clinical and academic interchanges between the radiologists and Dr Rao. There were many case discussions, plus interaction about differences between Melbourne and Albanian techniques and procedures.

The Children's Hospital in Tiranë is a teaching hospital and is incorporated into the radiology training scheme. Radiology residents have a paediatric radiology attachment for periods of 8 weeks at a time. However, the main bulk of work is still performed by the staff radiologists, such as reporting of studies and US with the resident observing.

In the Balkans, the radiology training scheme is four years long. Interest was expressed by a current radiology resident applying for and completing the paediatric radiology fellowship at the Royal Children's Hospital, Melbourne at the appropriate time in her training. In conjunction with the local radiologists, a number of investigations were performed on the patients reviewed by the KCFK team.

The radiologists were knowledgeable about the hazards of radiation exposure. However, their ability to optimise conditions varied between the radiologists and was limited by the equipment. For example, the fluoroscopy machine was continuous not pulsed fluoroscopy and there were no image store facilities, only exposures. The department had only one compatible xray cassette which caused a significant time delay if relied upon. This resulted in excessive inadvertent use of fluoroscopic screening of patients.

Various points that were highlighted as investigations were being undertaken were:

1. Checking of suitability for use of contrast medium.
2. Sterility.
3. Cross contamination.
4. Cleaning between procedures.
5. Excessive exposure of patients to radiation.



Patients undergoing procedures during which they lay on a hard table and for parents there are insufficient lead aprons for their protection.

Donations and Donors

Donations were received from Bard Urology, Ansell, Johnson and Johnson, St John of God. The funds for the visit were provided by a dinner held amongst the Albanian community in Melbourne. The hospital departments generously supplied transport and most of the meals, some of which were provided by the parents of patients; Qantas enabled the donations to be taken free of charge. Assistance is required with endoscopic equipment, instruments and lighting in theatre, noting that the focusing mechanism on the main light in theatre is broken and that insufficient light handles are available for the surgeon to control the positioning of the light.



Recommendations

Paediatric Surgery

1. The Kind Cuts for Kids Foundation should conduct further training visits related to anorectal anomaly and complex urology, particularly bladder enlargement surgery options.
2. A research paper on the management of chordee to be written.
3. Equipment required to be communicated to KCFK's, including improvement of the theatre lights.
4. Consumables should be provided during subsequent visits.

Radiology

1. Paediatric radiology subspecialty training should be enhanced.
2. Education in radiation protection and sterility should improved.
3. Paediatric probes for the ultrasound machine should be purchased.
4. The purchase of more lead protection gowns would assist.
5. Internet access to relevant Radiology journals.
6. Communications between radiologists and clinicians be maximised by clinicoradiological meetings.
7. Update of equipment, including paediatric probe ultrasound, CT and digital image fluoroscopy.

Conclusion

The second visit of the Kind Cuts for Kids Foundation has been as successful as the first. As before, children are the prime focus of the Kind Cuts for Kids Foundation, but not just the children on whom we perform surgery, anaesthesia and radiology, but the children who will benefit in the future from the education of the medical staff in the countries we visit. There have been many children who have benefitted directly by the hard work of many people before and during the visits to Albania. Without doubt, there will be hundreds more gain from the interchange between the Australian and Balkans surgeons, anaesthetists and radiologists.

A further combined visit to Kosova and Albania is planned for December 2011.

