

Kosova Paediatric Surgery and Urology Teaching Project

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A project of Kind Cuts for Kids,
supported by

University Clinical Center of Kosovo

Introduction

The previous reports for the visits to Kosovo give the background to the work. The connection of Kind Cuts for Kids has saved and changed the lives of many children, but more importantly the volunteer work influences the direction of future care of children. The teaching focus is on the gentle care of the families and the children as people, the precision of history taking, clinical examination, the thoroughness and precision of investigation; then when the decision to operate is made, the respect of tissues during surgery.

The anticipated new hospital for children's surgery will be a major contribution to the teaching from Kind Cuts for Kids visits since 2011, enhanced by the repeated reflection on the decision making for each patient that is indeed an individual; the promoting of corporate memory, the Hippocratic oath perspective of advocating beyond the individual patient and the need to be dedicated to patients as both a junior and senior surgeon, will probably have a greater impact than the new building.

The nursing staff in theatre is the group that are best known; they have been a small consistent group who have been present during the hundreds of hours of surgery. The surgeons and trainees have been equally dedicated, but divided in the tasks needed during the visits, as the emergency work continues during the Kind cuts missions. The theatre nurses are some of the best in the world.

Eighteen hours of clinics over two days enabled careful reflection on the patients and arrangement of additional clinical and investigational input. The weekend over, the next five days included patient reviews, several ward rounds and 68 hours of theatre time.

Additional sutures and catheters are required to be part of the kit taken from Australia, as are some finer instruments. A particular problem is the need for infant endoscopy equipment replacement. However, a system review of manpower management and continuous quality improvement are features needed to make the new bricks and mortar facility an international centre of excellence, for which there is indeed potential.



Part of the process development for the surgical care for children in the Balkans is informing the public of the opportunities for care in their own country, and to promote trust in the local product, which is partly achieved by the one-on-one contact and the use of the media to get the word out.

Consultation Clinics



A database of the clinical details, plus images of the patients, investigations and operative procedures is an important part of clinical care, teaching and audit.

The two clinics were on the Saturday and Sunday. Further consultations occurred on an *ad hoc* basis both for the review of additional patients and review of patients who had commenced information collection on either bowel or bladder function that was critical to decision making.

54 patients were reviewed during a total of 63 consultations, being part of a total number of 295 patients treated in Kosovo during the nine visits since 2011. Twenty of the patients were new to the Kind Cuts for Kids team this visit, eight had their second consultation, and three a third meeting with the visiting team; six had been seen at on at least seven occasions as part of the management of complex pathology over the years, which highlights the program development combined with follow-through of care.

The following pathology was managed; note the prominence of anorectal anomalies:

Anorectal anomaly	8	GIT pathology	3
Constipation/megarectum	6	Prune Belly	1
COPUM	1	Lymphangioma	2
Bladder exstrophy	2	Vesicoureteric reflux	1
Hirschsprung	11	Spina Bifida	1
Hypospadias	8	Pelviureteric Junction Obstruction	1
Duplex Kidney pathology	2	Diaphragmatic hernia	1
Intersex	2	Hydronephrosis	1
VUJ obstruction	2	Haematuria	1



Point-of-care ultrasound, an important part of the clinical assessment of the urological cases, in a boy who later featured in a television interview.

Operative Procedures

In the nine visits to Kosovo, of the 295 patients seen there have been performed 312 operations during 164 anaesthetics for 110 different patients; roughly half the patients undergoing surgery had more than one anaesthetic over the nine-year period.

During this visit 25 patients had 42 operations; there were no significant complications and no returns to theatre for post-operative complications. One patient had a transiently blocked catheter that did not lead to significant problems. No patient had a second anaesthetic. The patient who had a second urgent anaesthetic on the last visit made an excellent recovery. Late finish and team work were features of the operation sessions; uncomplicated outcomes were recognised in the ward rounds.



A small kit of instruments, and a suitcase of donations, add to the hands-and-heads approach to good clinical care.

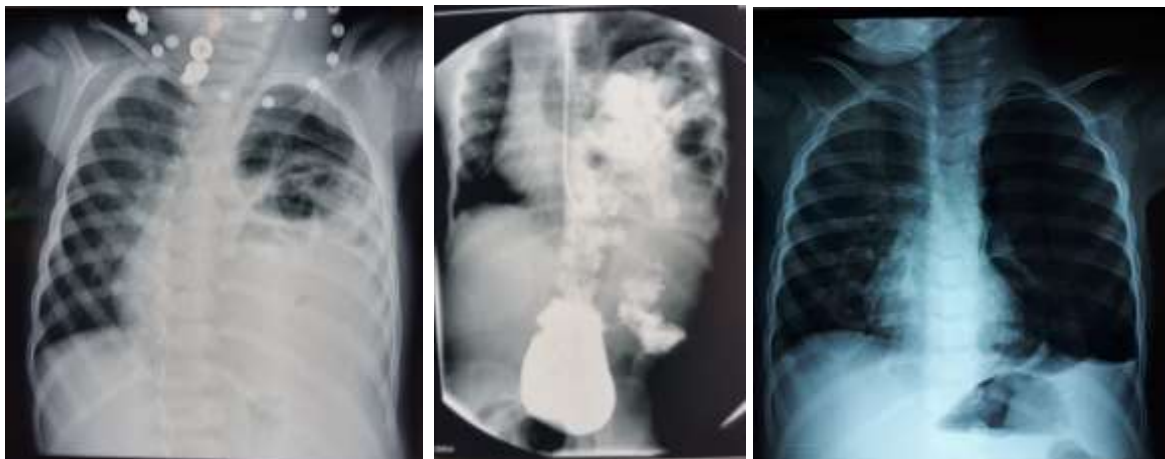
Operative Procedures

Date	Age (y)	Operation
02-Jul-18	5.5	EUA double penis
"	"	Urodynamics
"	4.5	Cavity lavage
"	"	EUA perineum
"	1.0	Cystoscopy
"	"	Excision of paraureteric diverticulum
"	"	Ureteric reimplant - duplex left
"	9.0	Fistula closure
"	"	Glansplasty
"	"	Urodynamics
"	6.0	Hypospadias - UB I
03-Jul-18	3.5	Division of L testicular artery
"	"	EUA of penis
"	"	Laparoscopy
"	6.0	Meatal dilatation
"	8.0	Pena - posterior angle correction
"	4.0	Colostomy revision
"	1.0	Pyeloplasty - no drains
04-Jul-18	3.5	Hypospadias - UB I
"	5.2	Hypospadias repair - UB II
"	4.5	Laparotomy
"	"	Sigmoid Bx
"	"	Upper rectal Bx
"	13.5	Colostomy - divided
"	4.8	Pena - high
05-Jul-18	1.1	Cystoscopy
"	"	Vesicostomy
"	12.5	Laparoscopy
"	0.9	Closure of ureterostomy
"	"	Excision of paraureteric diverticulum
"	"	Partial Right ureteric diverticulum
"	"	Ureteric reimplant - R
"	3.5	Imbrication of neorectum
"	"	Laparotomy
06-Jul-18	13.0	Hypospadias repair - distal tidy up
"	3.5	Diaphragmatic hernia repair
"	"	Wound revision
"	3.0	Herniotomy - inguinal
"	3.0	Cystoscopy
"	1.6	Cystoscopy
"	10.5	Hypospadias - UB I

Clinical Cases

Case 1

This case is of particular interest from an international standards perspective. Prior to being treated by Kind Cuts for Kids, this 4-year-old girl had two unsuccessful operations to repair a hole in her diaphragm. The first xray (a) shows a large area of increased density (white area) in the lower half of the left side of the chest (arrowed) which is due to the spleen and bowel herniating up from the abdomen into the chest (b). Failure to diagnose a diaphragmatic hernia can be life threatening. Complications from surgery can occur and should be anticipated. This girl did not require intensive care after the operation and has made a good recovery; both diagnostic and therapeutic success was achieved in Kosovo. The third radiograph shows the excellent post-operative result.

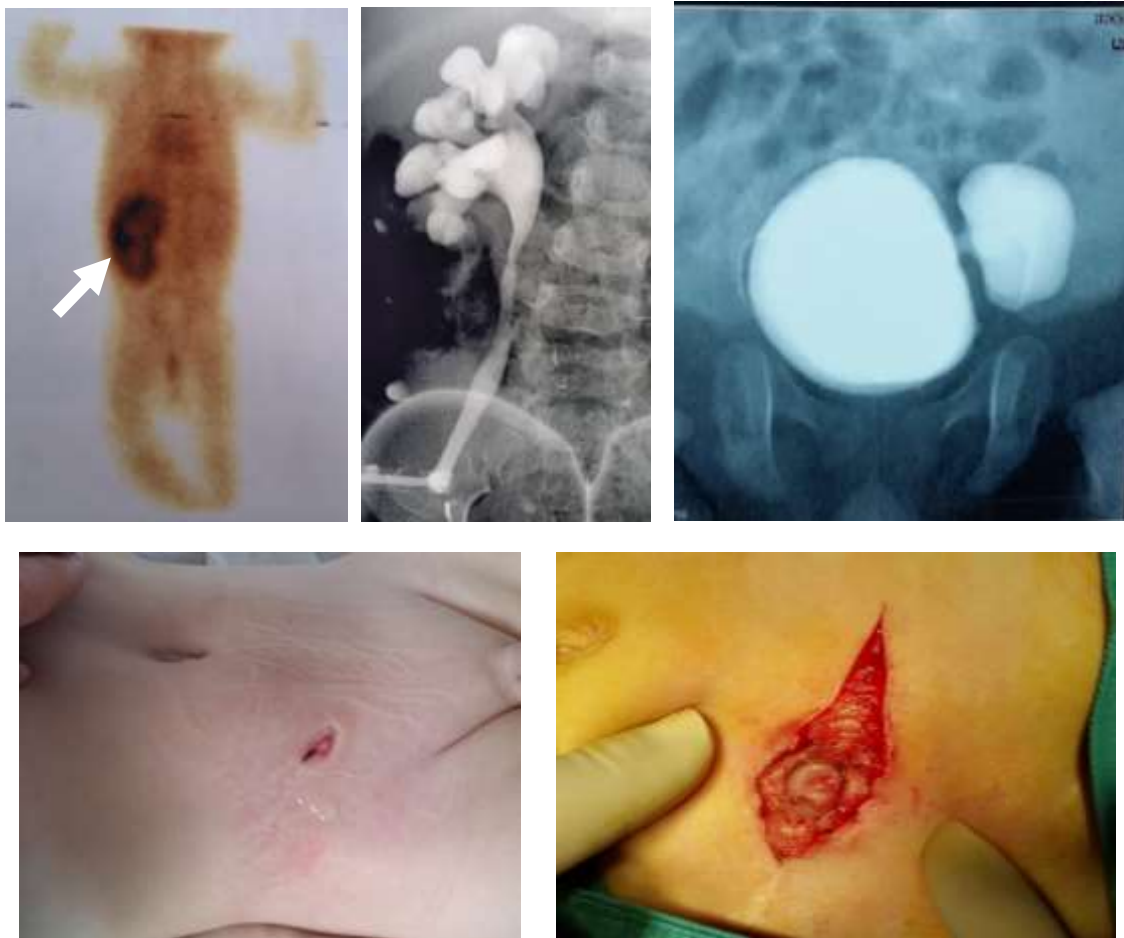


Clinical Cases

Case 2

This one-year old boy has only one kidney which was obstructed and not functioning well. He was born with the prospect of going into renal failure early. An operation in Kosovo saved his life; his right ureter was stitched to the skin, allowing his obstructed kidney to drain and be salvaged. The patient photo shows the ureter on the skin before operation and during surgery. The first study (a) shows the good function of the **right** kidney (the dark kidney-shaped part of the image arrowed). The second image (b) is with Xray contrast injected into the kidney, showing dilatation of the kidney collecting system. The third image shows the small bladder that was probably partly congenital, and partly related to no urine draining into the bladder; the second pouch (to the right of the image) is a diverticulum (arrow), which was retained to assist the bladder to have an adequate capacity to keep the solitary kidney safe. It may need to be removed in the future. The initial operation by the Kosovan team was life-saving. The Kind Cuts for Kids procedure was also life changing.

The operation involved cutting around the attachment of the ureter to the skin, mobilizing the ureter down, and including the obstructed attachment to the bladder, resecting the narrow portion, closing the side hole in the ureter and re-joining the ureter to the bladder. The use of a ureteric and bladder and the post-operative management of the removal of the tubes were important education points.



Clinical Cases

Case 3



In the presence of complex anatomy and pathology, each individual patient is unique and, while they need the application of sound principles to their care, an inventive attitude toward the many options that may be available should exist to ensure the “best-fit” solution is achieved. Thus, this boy, who presented with Hirschsprung Disease that results in a lack of relaxation to the lower part of the bowel, and who had undergone major surgery in a neighbouring country, but with a poor result that needed further intervention; rather than remove more of the limited supply of bowel, he had an operation that preserves the bowel, but makes it more functional by apposing the contact surfaces that then allow it to empty more efficiently. Basically, rolling a big tube longitudinally to make it into a narrower tube by a process known as *imbrication*. The young boy is seen in the clinic.



The operative images show the bowel during dissection in the first two pictures, then after the relatively simple procedure of imbrication of the colon minimal remaining colon, which had been seen to be hugely dilated on a preoperative barium Xray.

Clinical Cases

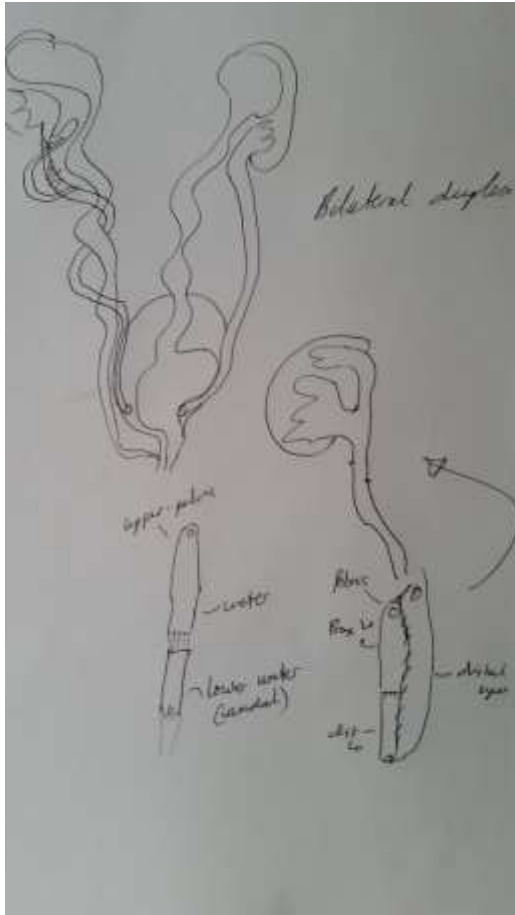
Follow-up Case 1



The images above are from a boy born with Hirschsprung disease, for which he had an operation to remove the abnormal part of the bowel that prevents the emptying of the colon. The X-ray shows the narrowing (arrow) that led to the need for a colostomy, but which was replaced when an operation in 2016 showed that he would be left with less bowel than ideal had the definitive repair gone ahead. The huge size of the bowel resulted in the prolapse of bowel seen in the second image (arrow); a revision was performed early in 2017, enabling normal bowel to be connected to the anus, but with the safety of having a colostomy proximal to the join to the anal skin. This year's review saw a healthy boy with normal bowel function and fit, albeit a small scar on the abdomen.

Clinical Cases

Follow-up Case 2



The illustration is after an operation on a patient who is still a little girl. Her first Kind Cuts for Kids operation was in May 2017, during which she had investigation of both kidneys having complicated double collecting systems. A cystoscopy resulted in the cutting of a hole in the bag (ureterocele) at the bottom of the tube (ureter) coming from the top of the left kidney. An operation was then performed on the right kidney that required an inventive solution to keep both components. The tube to the upper part of the kidney was cut, shortened, joined end to end for the back wall and united with the tube from the upper component of the right kidney by suturing the distal end of the subtended ureter to the front, open section of the ureter to the lower segment. The two ureters were then forming a "Y" junction.

Later in 2017, the non-functioning upper part of the left kidney was removed. In 2018, the bladder anatomy was checked during a further anaesthetic, showing that no further surgery in this healthy 20-month-old girl was required. *The pictures the girl before and after, and her now happy mother.*



Sponsors and supporters

South Western Drilling, a gold sponsor provided significant additional funding for equipment; Lawson Delaney and Johnson Recruitment, our other gold sponsors; ODC Design, Edge Commercial Interiors, our silver sponsors, plus our platinum members have also contributed to the financing of the Kosovo project; important and significant further contributions continue to be received from efforts of the Albanian community in Victoria, the Manningham Rotary Clubs in Melbourne.

Those who initiated the Balkans project should continue to be recognised; those involved included John Taip, Reg Karafili and Sezar Jakupi from the Australian Albanian community who continue to support the project. And, while all those associated with the project in both Australia and Albania made their own contribution, the ongoing commitment of Professor Nexhmi Hyseni is extremely valuable to the project.



The New Hospital



The future for Paediatric surgery in Kosova is bright with the plans for the building of the new hospital well under way.



A picture into the near-future: Looking through the window of the current theatre you can see the sign for the new Paediatric Surgical building in front of the building site.