BAUS Urolink trip to Kilimanjaro Christian Medical Center, Tanzania
22 November - 4 December 1999

by Patrick Cutinha

Introduction

The Kilimanjaro Christian Medical Center is a 450 bed regional referral hospital situated at the foothills of Mount Kilimanjaro. It serves the northern region of Tanzania, a catchment population of about 7million. The Institute of Urology was commissioned in 1992 by the Associations of Surgeons of East Africa to train surgeons in urological surgery in an environment restricted by limited resources and frequently met with advanced and complex pathology. The Urology unit comprises a 35 bed ward with a further 20 beds at the nearby Kibosho Hospital for patients awaiting or recuperating from surgery. The Institute has access to basic radiological, pathology and laboratory facilities. Over the years the Institute has gained a reputation and one often sees patients coming from outside the region and indeed neighbouring countries. The attending fellows enter a two-year MSc course, which not only includes acquiring surgical skills and also a dissertation. UROLINK has for several years supported the Institute with UK Consultant operating and teaching, providing educational material, instruments and equipment amongst others. This visit was to participate in a surgical workshop at the Institute. About 25 local specialists attended the workshop from all over East Africa.

Visiting Faculty

The visiting UK faculty consisted of:

Christopher Chapple Consultant Urologist, Sheffield
Neville Harrison Consultant Urologist, Brighton
Philip Thomas Consultant Urologist, Brighton
Pat Malone Consultant Pediatric Urologist, Southampton

Participants at the Urology Workshop, KCMC

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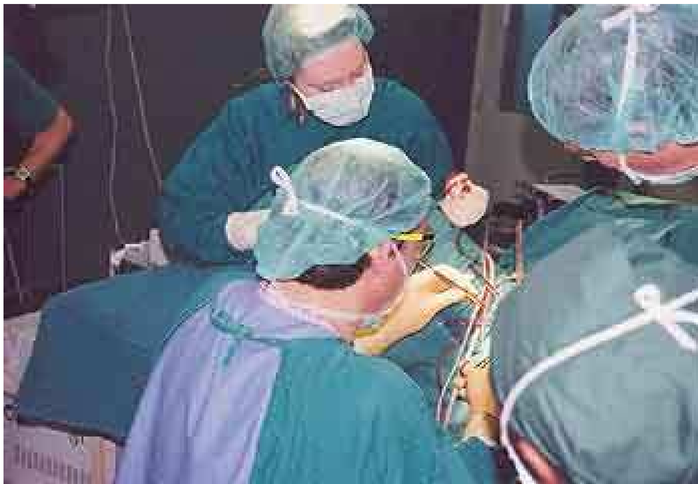
Workshop Activities

There were daily 8am ward rounds. Patients undergoing surgery were reviewed and their clinical condition discussed bearing in mind the local resources and follow-up. During the visit the following surgery was performed:

- 16 urethroplasties including demonstrations on anastomotic, pedical penile skin onlay flaps
- Hypospadias repair - Snodgras technique and two stage procedures for hypospadias cripples
- Pyeloplasties
- Nephrectomy for a large Wilm's tumour
- Genital reconstruction for a cloacal malformation
- Sigma-rectal pouch for bladder extrophy/epispadias complex.
- Vesico-vaginal fistula repair - birth trauma



Chris Chapple assisted by Tamsin Greenwell - Urethroplasty

Theatre sessions usually ended at about 3pm with a brief lunch break.

After 4 hours in a steamy theatre - still smiling!

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Lectures and discussions were held thereafter, covering topics including hypospadias repair, urethroplasty and the not so often encountered intersex patients presenting around puberty. UK trainees had the opportunity to present on various topics including the management of incontinence, bladder substitution procedures and mucosal grafts for urethroplasty.

Pat Malone lectures on management of hypospadias

All the sessions were consultant supervised. Overall this was immensely educational. The local participants felt equally enlightened.

Of particular interest to the UK trainees were:
Vesico-vaginal fistulae following birth trauma which tended to be large or operated on previously
Management of late presentation of intersex
Retrieval of previous hypospadias repairs
Re-use of disposables including gloves and catheters

Reused gloves - washed and being sterilised

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Use of autologous blood
Instrument care & servicing
Training of junior cadres such as the assistant medical officers and nurses to recognise, treat and operate routine conditions.

Propositions / Suggestions

- UK trainees would gain immensely working at the KCMC as the pathology seen is varied and often complex. I would certainly recommend a period of such experience for any senior urological trainee.
- It would be helpful if the SAC were to recognise at least part of the time spent at KCMC.
- While local surgical expertise may exist there is a reluctance for local surgeons to work at KCMC. This unfortunate situation has arisen from the poor remuneration offered and the unaffording general populace that KCMC serves. Tanzania has only just relaxed it policies towards 'private practise' and one can only hope that this trend will be reversed. In the interim it would be most desirable if sponsorship was made available for Urologist to work at KCMC perhaps through applications to the VSO, WHO.
- The KCMC being the only regional referral centre in northern Tanzania sees the majority of patients with vesico-vaginal fistula and complications from gynecological surgery. Considerable expertise exists locally and it would be a greatly beneficial to trainees if the next workshop were to focus around this difficult condition.
- It would be ideal if a 'base' were set up at KCMC for regular visits by UK trainees.
- The area is exposed to the rages of schistosomiasis and complications of its infestations. This presents a unique opportunity to learn the management of the condition including surgery for continent rectal pouches which appears to be the preferred diversion in case of cystectomy.
- Local candidates attending the MSc programme have limited access to the Medline and other databases. They would consider it most helpful if such searches could be performed here and e-mailed back.

It is not all work ! Tanzania has a lot to offer: the highest mountain in Africa, Kilimanjaro, stands at 5895m; numerous game parks including the Serengeti plains and the Ngorongoro Crater; the Spice Islands of Zanzibar and Pemba and the surrounding clear waters of the Indian Ocean with white sand beaches. Perhaps most welcoming is the warmth of its people despite all the difficulties they face.

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May I take this opportunity of thanking my sponsors for this very worthwhile and memorable visit and to the consultants who patiently taught their skills in the hot and humid theatres!

Patrick Cutinha SpR Urology Sheffield
15th Jan 2000

A message from the Patients at KCMC:

"Tunawashukuru kwa dhati kwa kuchukuwa muda kuja Tanzania na kutumia ujuzi wenu kwa kuwafuzu wabingwa wetu na tuliza dhiki yetu, Kunaomba ushiriano unendelee Tunawatakiya kila la heri na safari njema mnapo rudi nyumbani."

We are most grateful for the time you have taken to come to Tanzania to use you skills in teaching our specialists and for alleviating our suffering. We hope this cooperation will continue. We wish you all the best and a safe return to your homes.

by Tamsin Greenwell

'Take off your watches everyone - we are in Africa and time is now irrelevant' announced Patrick Cutinha when we had eventually cleared customs at Kenyatta Airport, Nairobi - only one suitcase and $20-00 each down - and so started an exciting, educational and invigorating week in Africa. A 6 hour journey along the pot-holed and at times non-existent main road between Nairobi and Moshi (Tanzania) followed, incorporating a detour via the worst toilet in the world (making the one in 'Trainspotting' appear highly desirable) and a great Afro-Indian dinner chez Cutinha.

Arriving at night at the Uhuru Lutheran Christian Hostel, we were immediately whisked to KCMC hospital for a ward round and review of the patients for the next day's operating lists. The four UK Consultant Urologists (Neville Harrison, Phil Thomas, Chris Chapple and Pat Malone) had travelled at their own expense to take part in the Biennial J. Lester Eshelman Memorial Urology Workshop - the only formal urology teaching available to local East African urologists. Twenty-five urologists attended from Kenya, Tanzania and Uganda (including several Europeans who visited and practised in the region regularly) and three UK trainees (Sandip Gujral, Patrick Cutinha and myself). The theme of the 5-day course was urethral stricture disease, hypospadias and intersex. The urology wards and surrounding hostels were packed with affected patients, many of whom had travelled for days cross-country for the chance of surgery.

Kilimanjaro Christian Mission Centre (KCMC) is the main teaching hospital in north Tanzania and contains the East African Institute of Urology. A medical school has recently opened its doors at the hospital under the auspices of Tumaini University - and much postgraduate urology teaching and training occurs at the Urology Institute founded by J. Lester Eshelman. Tanzania is a poor country - the average

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registrar earns £28.00 per month and the average nurse £15.00 per month. The local Consultant Urologist supplements his income by farming, and many can only afford to be doctors if they have some other source of income. The hospital has a very small budget to pay all running costs and most things are home-made or recycled: swabs are made from local gauze, lubricating jelly is made from seaweed, irrigating fluid and intravenous fluid are manufactured on site (into big glass bottles with rubber bungs) and gloves are re-sterilised after washing. Sutures are in short supply, and many surgeons obtain their sutures from charities and keep them safely stored in their offices - bringing only enough for each operation to theatre. The hospital had 3 antibiotics in stock (gentamicin, amoxycillin and metronidazole) and 2 analgaesics (paracetamol and pethidine) but had been known to run out from time to time. The vast majority of anaesthetics were spinals - with chloroform available for general anaesthetic. Monitoring was limited; the ECG machine caught fire and had to be dispensed with during the one GA operation I attended. The week was very intensive - Pat Malone, Phil Thomas and Chris Chapple each had one theatre, and operated from 8.30 am to 2.30 pm. Neville Harrison had a more supervisory role.

Neville directs

We then had lunch in the post-graduate centre, followed by lectures, teaching sessions and discussions of the week's topics (by all 4 visiting Consultants and Peter Ngugi, Consultant Urologist at Kenyatta Hospital, Nairobi). If any of the 3 UK trainees is not now a urethral stricture expert then they deserve a good tanning! The teaching sessions were fun and interactive - the East Africans were well-read, opinionated and happy to join in - a far cry from some UK teaching sessions I have attended.

Eighteen urethroplasties were performed during the week, along with a MAINZ II diversion for exstrophy, a pyeloplasty, several hypospadias repairs and correction of a complex congenital anomaly of the external genitalia (in a male).

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Complex congenital abnormality of external genitalia

I took part in 6 urethroplasties, and Patrick, Sandy and I each gave a short 5-minute lecture to the weekly multidisciplinary educational meeting (needless to say the boys overran whilst I stuck to time - who said that women talked too much!). Standing in front of a sea of many hundred faces was quite an experience - as was being asked to give my impressions of life as a female urologist in KCMC and back home. The hospital has recently appointed East Africa's first female urology registrar (Rosemary), who had completed her first year at KCMC and ably and enthusiastically took part in the teaching week.

The week provided an invaluable insight into life and healthcare in another (far poorer) system. I met some very interesting, motivated and entertaining surgeons. I learnt a hell of a lot about urethroplasty, hypospadias and intersex - both theoretically and surgically. Tanzania is a beautiful country. I am definitely planning to go back - both as a tourist and to work. Watch this space!

by Sandy Gujral - Specialist Registrar, South West Region, UK

The magic of Kilimanjaro…

The second phase of the trip was with the BAUS Urolink group attending the third biennial Eshleman surgical workshop at KCMC. The team included the consultants' Neville Harrison, Chris Chapple, Pat Malone and Phil Thomas and the registrars Pat Cutinha and Tamsin Greenwell.

I was to meet the group at Jomo Kenyatta airport, Nairobi, on Sunday 21st November. Unfortunately, there was a mix up, with the team being delayed due to luggage and visa problems in the terminal and, we missed each other! My next option was to catch the Davanu "coach" service from Nairobi to Moshi via the Maasai plains through Namanga on the Kenya/ Tanzania border. This was an interesting trip, which took just over 6 hours. I was privileged to meet Dr Eshleman

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and his good wife on board!

We finally caught up at the Lutheran Uhuru Hostel in Moshi. I had missed a very interesting first day, which included a welcome from Dr Charles Casteel and his team, and some opening lectures on reconstruction of the lower urinary tract. To add to my sorrows, Kilimanjaro was invisible behind the heavy cumulus!

The Uhuru Hostel in Moshi

The next day started early with a breakfast of paw paw and other local fruits. Pat Cutinha who hails from this town and has family who owns the famous Roy's Safaris Ltd in Arusha kindly drove us to KCMC. Neville Harrison introduced me to Dr Casteel and his team and showed me round the urology unit. I was pleased to see so many local urologists including those from Zanzibar, who are so well known to us in the SouthWest region! The Kenyan contingent included Peter Ngugi from Nairobi and Drs Mungai, Kanyi, Wachira, Nduatha and Oliech.

The normal format for these workshops is for the local urologists to bring difficult cases with them so that these can then be assessed and operated upon by the experts assembled. The local urologists then act as first assistants for their cases.

The day started with a quick ward round of the patients to be treated on the day. Three theatres were run concurrently from 0900 hrs to about 1330 hrs. I started off watching Pat Malone undertaking a bladder exstrophy/ epispadias case. He expertly closed the defect and decided in the circumstances to divert the urine via a Mainz II diversion.

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Urology ward, KCMC

In the next theatre, Chris Chapple had the "redo urethroplasty from hell" on a 15-year-old youth. He undertook a bilateral penile skin island flap primary repair after excising nearly 6 cm of severely fibrotic tissue. This was followed by a short "sweet tea" break and then further complicated urethral stricture and hypospadias surgery. Most cases were completed as one-stage procedures. All surgeons were happy to answer questions from the viewing doctors and photographs were taken as needed.

Most anaesthesia was administered via the EMO machine

There were some problems with equipment especially diathermy, but in general things went smoothly. Many specialist sutures and equipment like the Turner Warwick ring retractor were brought in from England. All local urologists and the SpRs were impressed by the stamina of the BAUS consultants who really worked flat out!

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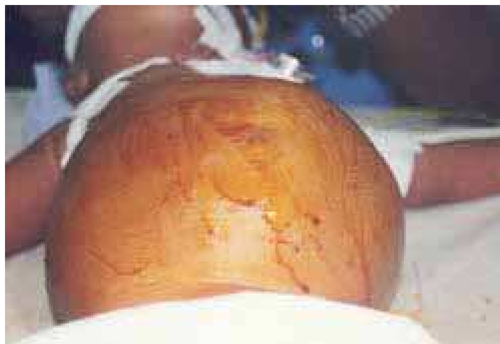
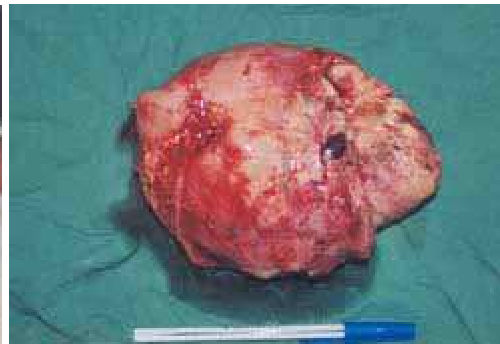
The visiting gaggle of urologists

Over 20 major lower urinary tract reconstructive operations were done in the workshop and Pat Malone even removed an enormous Wilm's tumour from a young infant.


12 kg child with.....


....1.5 kg Wilm's tumour

We await longer-term follow up results on our cohort of patients. The operating sessions were followed daily, by a working lunch in a well-appointed seminar room. The operations were summarised and discussed and the next day's patients' records assessed.

Lectures on all aspects of urethral stricture disease, hypospadias surgery and genital surgery were then delivered. Pat Malone gave an excellent overview of intersex states. The whole process was a two-way discussion with the African urologists having a good input. Peter Ngugi also elegantly presented his results of complex stricture surgery from Nairobi.

We took part in the weekly Wednesday Grand Round of the hospital. This is a meeting where all the hospital medical and paramedical staff together with students attend. The whole thing was run with military precision, especially the time keeping! Neville Harrison introduced the Urolink group and gave an excellent talk on its objectives and the associations with KCMC. The other consultants had

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a well deserved break (for a few minutes!) whilst the three of us (i.e. the SpRs) had the opportunity to talk on a reconstruction subject for a few minutes. My talk was a rapid and simple run through the principles of orthotopic bladder replacement following radical cystectomy for bladder cancer. Tamsin gave a good talk on buccal mucosal grafts whilst Pat spent slightly more time (!) talking to his home crowd on the urodynamic assessment of the lower urinary tract.

Dr Eshleman then addressed his "brethren" and introduced a new KCMC textbook of urology written by the local KCMC graduates including Pat Cutinha.

Neville Harrison and Phil Thomas were also involved in marking examination papers and in the viva-voce assessments for the local MSc in Urology examinations.

Prior to returning to our hostel, we would review the postoperative cases and I was able to use my Swahili again to inform the patients of the outcomes and so on.

Due to on-call commitments in Bristol, I had to leave on Thursday and missed the farewell meal organised by Dr Casteel. We were also graced by excellent views of Kilimanjaro later in the week.

There she is!

Overall, the experience at KCMC was invaluable. The cases seen and treated were impressive and I am unlikely to see this pathology here unless attached to a specialist stricture unit. The lectures and discussions were extremely helpful to all trainees and we came away with a much better understanding of stricture and hypospadias surgery.

Conclusions

In conclusion, the visit was very worthwhile in several aspects. I was able to take a trip down memory lane and see how things are developing in my birth town. I was hit by the severe deprivation that still exists in most of the world, upset by the

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worsening mismanagement and corruption which exacerbates suffering, and elated by the dedication of local African doctors who are in general well trained and motivated. I was thankful for all the healthcare provision we take for granted here in the UK and hopeful that one day, through collaboration between groups such as Urolink and KCMC, we can ensure that all people have access to decent basic medical and surgical care.

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