Katie Brodie TUF Fellowship/Urolink Visit Report

Kilimanjaro Christian Medical Centre, Moshi, Tanzania

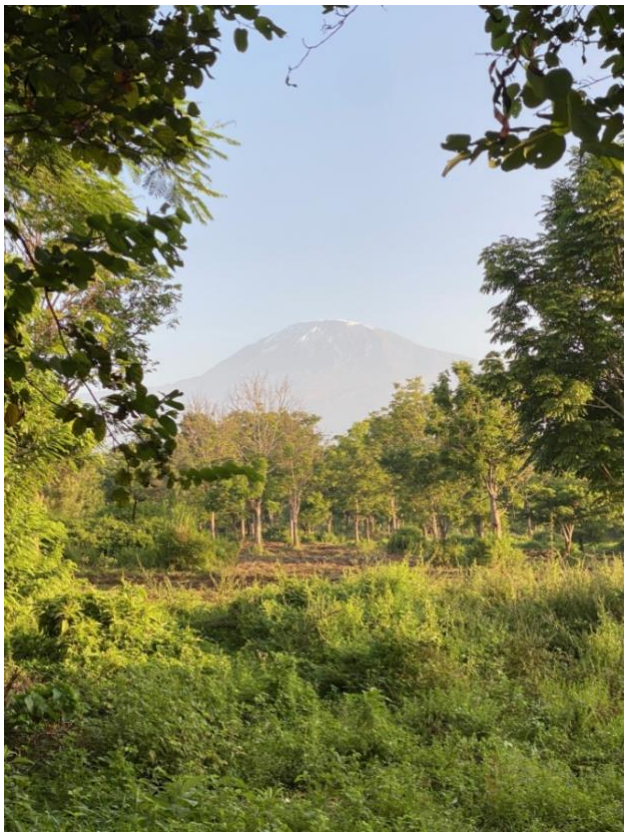
Monday 12th February – Friday 23rd February 2024

Background

The Kilimanjaro Christian Medical Centre is a large hospital in Moshi, Tanzania, opened in March 1971 by the Good Samaritan Foundation. It has 630 official beds, 90 canvas beds, 40 baby incubators, 1852 students and 1300 staff. It is part of a complex including Kilimanjaro Clinical Research Institute and Kilimanjaro Christian Medical University College.

It is the zonal referral hospital located in the Kilimanjaro Region, in the northern zone of Tanzania. It has an established links with the Northumbria Healthcare NHS Foundation Trust and Duke University, North Carolina.

The link between KCMC and BAUS Urolink was made over 25 years ago, with multiple visits and workshops having taken place since.



The Kilimanjaro views on the morning walk to the hospital. She is a behemoth but often shrouded in cloud as the day goes on.

Pre-trip organisation

We liaised with senior residents Dr Dennis Shirima and Dr Esther Lekei about the topics they wanted in their teaching programme. They explained about their upcoming exams and, in particular, their COSESCA exam. We decided to use the FRCS (Urol) main headline topics as areas to focus on.

The visa for Tanzania can be applied for electronically and it was quite straightforward to do on the website, with an invitation letter from Dr Frank Bright (Urology Chief at KCMC). A visit to a travel clinic ensured that all vaccines were up-to-date as well. Moshi is situated at an elevation of 2980ft but is still a high-risk area for malaria transmission, so I elected for Malarone prophylaxis.

I was recommended to bring good battery charging packs, a head torch and lamp in case of power outages, which happened somewhat frequently. I also brought my own scrubs and theatre shoes.

I was grateful to be awarded a TUF/Urolink Fellowship in 2023 to enable me to undertake this teaching visit. I had read on the BAUS website about the work that Urolink have undertaken across the world and became actively involved with the Zoom webinars during the pandemic.

Aims

-To undertake a resident teaching programme (with lectures and small group teaching) to help with their study for the COSESCA exams
-A personal aim of mine was to observe and appreciate the urological pathologies that present in Tanzania and their management,
-Another aim was to observe ureteric and renal stone management in KCMC, prior to the endoscopic stone management workshop that will be taking place in later this summer.

Summary of activities

I arrived at Kilimanjaro International Airport, excited to be back in Tanzania. After the Scottish winter, it was delightful to be embraced by the warm sun in Moshi. On the drive from the airport, acacia trees dotted the landscape, goats were being herded along the roadside and families headed to church. We went straight to the market in Moshi to pick up some shopping (we cooked meals most nights in the accommodation) and had our first taste of exquisite Tanzanian coffee. We were delighted, probably as all millennials would be, that we had an avocado tree in the garden of our bungalow, which regularly dropped perfectly ripe avocados onto the lawn.

This way to the Urology clinic!

On the first day, we attended ward rounds at 7:30am and could immediately appreciate a few differences to urology ward rounds in the UK. The ward rounds are a big group, sometimes with 20 people between the medical students, residents, nurses and consultant. This meant there was a fair amount of crowding around the bedspaces, with some peering over shoulders, but the patients did not seem perturbed. There were lots of urological pathologies to see; some similar to the UK (patients post-TURBT ,TURP and cystectomy) and some different ones (fistulating scrotal TB and schistosomiasis). It became evident over the course of the visit that renal trauma is very common in Tanzania and is usually blunt trauma from road accidents. I had not heard of 'boda boda' drivers before but these motorbikes weaving around traffic, often carrying multiple passengers, are quite ubiquitous around Moshi and Arusha, as taxi services or for recreation.

Hospital day ward

The medical students were an impressive and keen group. They divided up the all the ward patients, ensuring that each one was presented every morning to the residents and consultant. They took diligent histories and updated the ward round each day about the case. It was definitely a point of reflection for me, that teaching ward rounds do not happen commonly in the UK; the status quo of most UK surgical ward rounds is efficiency and, although we involve medical students and junior members of the team, it is not often that a solely educational round takes place.

We undertook daily teaching sessions with the medical student on a variety of urological topics including urological history-taking, LUTS, haematuria, Fournier's, acute scrotum,

stones and stents and bladder cancer. They prepared well for the topics and had endless enthusiasm.

In KCMC, we also discovered some amusing similarities to UK hospital life; the staff sought out the best coffee in the hospital. The hospital coffee stand was a one-woman barista enterprise and the flat whites were outstanding. Secondly, it was interesting to learn that hospital parking was also a troublesome issue.

Our daily routine developed into attending the morning ward rounds, then shadowing the residents in clinic or attending theatre. We scheduled teaching sessions for residents around their theatre time or sat down to discuss tricky cases as a group. Topics covered with the residents included renal cancer, prostate cancer, male infertility, uro-technology and uro-radiology, management of ureteric and renal stones and paediatric hydronephrosis.

Theatre cases were scheduled across two dedicated urology theatres and the case mix was similar to the UK; TURP, TURBT, urethrotomy, urethral fistula repair, cystectomy with urinary diversion and cystolitholapaxy. The choice of urinary diversion after cystectomy was ureterosigmoidostomy, as the availability of stoma bags is poor in Tanzania. There was a good mix of paediatric urology cases in theatre also (herniotomies, orchidopexies and a Wilms' tumour resection). It was impressive to see the residents who were not scrubbed for the case, pitch in to help with theatre productivity and glean learning points from each case. There were sometimes 5 residents in theatre per case but the learning was shared and the atmosphere was collegiate.

After our session on endoscopic stone management, we took the opportunity to learn from the KCMC residents on their approach to open stone surgery. In the absence of a C-arm, lithoclast or laser, this is their current approach to obstructing or large stones. I had no experience of open ureterolithotomy before and it was fascinating to talk through their management options, review the imaging and then see some cases in theatre.

We attended the weekly Urology Departmental Grand rounds. One of the Tanzanian residents gave a presentation on recurrent UTI management and UTI causative organisms' resistance patterns in Tanzania. We learnt that E.coli is around 50% sensitive to gentamicin and first-line urosepsis antibiotics include ceftriaxone, amikacin and meropenem. I gave a presentation on male LUTS and the current options for BPH treatment in the UK. Suzie Venn presented on the recent fistula repair workshop which had taken place in Malawi, the week prior to our arrival in Tanzania, and had involved two of the senior KCMC residents.

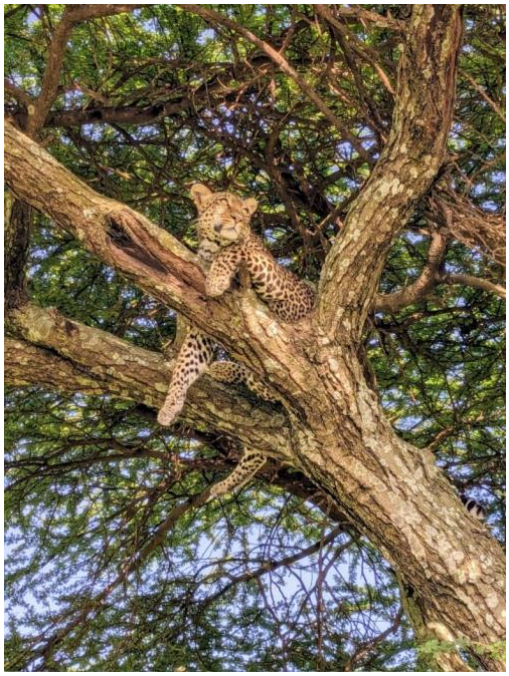
During one of our resident teaching sessions on metastatic prostate cancer management, there was quite a degree of discussion and mutual learning about the management in the UK and Tanzania. The residents spoke about the Tanzanian attitudes to prostate examination, as it is felt to be extremely taboo, and Tanzanian male knowledge of prostate cancer is low, at about 20%. This is despite high-profile politicians having been diagnosed with it in recent years. We discussed the practice of subcapsular orchidectomy and attitudes towards it in Tanzania and that the use of LHRH agents in the UK has meant that is not commonly undertaken here.

Prostate biopsy clinic involved finger-guided prostate biopsies, which was a slightly daunting to watch given the proximity to the operator's finger.

Extracurricular activities:

I was fortunate to be able to take some days to visit the beautiful Serengeti national park and Ngorongoro crater. These were both absolutely brimming with wildlife and the views were sensational. Seeing these incredible natural wonders of the world in Tanzania was a memorable life experience.

The hospital netball court; possibly the first hospital I've visited with a court!



Leopard spotting

Reflections:

This was my first experience of medicine in a lower-middle income country. The delivery of healthcare here has its challenges, in particular with equipment provision, but the KCMC urology team adapt and work hard to offer their patients great care.The opportunity to observe urological practice and undertake resident teaching was a wholly unique experience, and in my last year of training, was something I will always be grateful to have done.

The residents have incredible enthusiasm, dedication and stamina. They were extremely welcoming to us and I enjoyed sharing stories about our training experiences. Their urological knowledge was at a high level and open surgery skills were incredible. I enjoyed getting to know the residents on a personal level and hope to remain in contact over the coming years.

I think the educational ward rounds are something that I would aspire to see more of in the UK. This may be difficult to enact in practice, given the time pressures of service delivery. I think all members of the KCMC urology team benefitted from the rounds (medical students to senior residents) and I found their team structure to be very cohesive.

Senior residents Dennis, Esther and Janeth with TUF fellows Katie and Rory

Future plans:

-Rory and I will continue to work with the Tanzanian senior residents over the coming months, to undertake viva practice via Zoom, leading up to their COSESCA exams.

- I will aim to liaise with TUF fellow Danielle Whiting after her Urolink visit in July 2024, to help set up the KCMC endoscopic stone service

I would like to thank The Urology Foundation for their generous grant to help with undertaking this visit. It was one of the most significant moments of my training to date. Their support of all facets of urological disease, both benign and malignant conditions, is incredible. In addition, their support of global urology with the Urolink/ TUF awards is quite exceptional for trainees and I know that it has sparked my desire to remain involved with future endeavours. I would encourage all urology trainees to follow the work of TUF and Urolink, on social media or via the BAUS website.

I would also like to thank Dr Frank Bright (Chief of Urology at KCMC) and Dr Nico Ngowi (Urology Consultant at KCMC) for the kindness and warm welcome they provided during our visit and to Suzie Venn, for supporting and guiding us during the visit.

Katie Brodie, March 2024