TUF Urolink Fellowship Report

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Kilimanjaro Christian Medical Centre (KCMC)

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In May 2023, I travelled to Moshi, Tanzania to visit Kilimanjaro Christian Medical Centre (KCMC). This trip was made possible through the collaborative efforts of the BAUS Urolink organisation and with the generous support of The Urology Foundation (TUF) as part of their fellowship programme that provides senior UK trainees with the opportunity to experience Low or Low-Middle income (LMIC) healthcare settings (1). In this article, I will share an account of my unforgettable experience.

KCMC is a 630-bed tertiary referral hospital, situated on the outskirts of Moshi, Tanzania, graced by the iconic Mount Kilimanjaro. The Institute of Urology at KCMC has established itself as one of the primary centres for Urological surgery in East Africa and has earned recognition as a key training hub within Tanzania and beyond, encompassing neighbouring countries such as Kenya, Malawi, Rwanda, and Uganda. Over the years, KCMC has developed a collaboration with BAUS Urolink and has hosted numerous Urolink visits and workshops - notably, the biennial Lester Eschelman workshop. This event is named after the late Jacob Lester Eshelman (1921-2009) who dedicated much of his life to the advancement of surgery, especially urology, in East Africa.

Image 1: KCMC main entrance

In the early stages of my registrar training, I was fortunate to join a trip to Hôpital Général de Grand Yoff, in Dakar Senegal, to help establish a laparoscopic urology workshop which has since gained accreditation from the Royal College of Surgeons of Edinburgh (2). Subsequently, I became an active member of the Urolink committee and, motivated by my previous experience, I decided to embark on another international visit during the final months of my training. Following a request from the KCMC team for support from Urolink to improve their resident teaching program, its chair, Suzie Venn who

frequently visits KCMC and maintains strong links with the department, and I engaged in discussions with the department head Dr Frank Bright to formulate a plan to deliver a series of teaching seminars to the KCMC residents over a two-week period.

Upon arriving in Moshi, I was immediately taken by the beauty of the Tanzanian countryside and by the presence of Mount Kilimanjaro, standing tall over KCMC, and by the warm and hospitable nature of the Tanzanian people I encountered. Undertaking visits alone can be daunting for trainees, but any reservations I had were swiftly dispelled when I met the host team. Chief Resident Dr Dennis Shirima and over twenty other residents training in the unit, along with Dr Bright, were very welcoming, and their camaraderie and support immediately made me feel at ease. I learned that most of the residents were enrolled in the Tanzanian Master of Medicine (MMed) government programme whilst others were undertaking The College of Surgeons of East, Central, and South Africa (COSECSA) fellowship programme in Urology. Both programmes typically span four years but whilst the MMed programme involved biannual examinations run locally by KCMC, the COSECSA residents underwent rigorous external examinations similar in format to the FRCS(Urol) in the UK.

My typical day began with a morning ward round at 07:30; this was preceded by a prayer. The ward round itself was conducted at a deliberate and thoughtful pace, creating an excellent platform for the residents to share their knowledge with the numerous medical students on placement in the department. The students took turns delivering a detailed presentation of the inpatients, and the leisurely rhythm allowed for more in-depth discussions and meaningful exchange of knowledge and ideas about patient management. The round often lasted for up to ninety minutes; this approach was a refreshing departure from the rapid pre-theatre rounds I had become accustomed to in the UK. Notable cases included a patient with traumatic urethral trauma following a motorcycle accident, a paediatric case of Wilms' tumour and a young patient recovering from bladder exstrophy closure undertaken during a paediatric urology workshop the department had hosted the week prior.

Image 2: Morning rounds

After the ward rounds, I conducted interactive teaching sessions for the medical students daily, covering a range of core topics such as assessment and management of lower urinary tract symptoms,

urological malignancy, and urological emergencies. I was very impressed by their knowledge and eagerness to absorb new information and their enthusiastic participation in the teaching sessions made the experience incredibly fulfilling for me.

Image 3: Teaching the brilliant medical students

At the outset of the week, Dennis and I devised an afternoon educational program for the residents. I was surprised to hear that residents were largely expected to follow a self-directed educational programme - without the structure of formal teaching days or mandatory portfolio requirements that we are accustomed to in UK surgical training. Consequently, formal teaching was warmly welcomed by the entire team. The programme focused on core topics in the MMed and COSECSA Urology curriculums. The format featured micro-teaching talks that both the residents and I delivered, encompassing relevant international guidelines and supporting literature. We also engaged in interactive case discussions, creating a platform to share our varying experiences and practices. This structured approach fostered a dynamic learning environment and promoted the exchange of valuable insights among all residents. One of the highlights of the week was a Zoom talk on prostate cancer delivered by Jonathan Noel - consultant at Guy's and St Thomas' hospital - made possible after Jonathan reached out to me whilst I was in Tanzania to express his interest in contributing to the educational programme. It was fantastic to be able to connect the two institutions for the exchange of knowledge and expertise - an invaluable addition to the programme and one which all the residents were very grateful for. In one of the other sessions, we enjoyed a series of formal case presentations that one of the residents had prepared covering two current inpatients – one of fungal sepsis in a patient with HIV, and the other of a large renal mass with IVC extension.

The afternoon sessions were well attended by the residents, with up to 25 participants each day, which was encouraging considering the residents had to plan their attendance around their busy daily schedules including clinic, ward, and operative commitments. Despite their demanding workload, the residents displayed a genuine eagerness to participate in the teaching seminars, demonstrating their commitment to continuous learning and development. The active participation in the sessions added to the overall success and impact of the educational programme.

The interactive discussion proved to be beneficial for me as well. It provided valuable insights into the local assessment and management practices for typical presentations, such as visible haematuria. I learned that at KCMC, patients undergo general or spinal anaesthesia rigid cystoscopy due to a lack of flexible cystoscopes. Furthermore, I gained a deeper understanding of the local approach to the management of stone disease. The absence of a LASER, or lithoclast, precludes ureteroscopic management, resulting in almost all calculi being managed via an open uretero- or pyelolithotomy. This highlighted the resource challenges of the African environment and broadened my perspectives about adapting to different healthcare settings and making the most of available resources to provide effective patient care.

As a registrar in the final months of my training in the UK, I was also eager to gain a comprehensive understanding of the day-to-day clinical experience of patient management at KCMC. I found great value in observing the residents during the daily morning outpatient clinic. Whilst most of the cases were not dissimilar to those seen in general urology outpatient settings in the UK, such as raised PSA, phimosis, and assessment/management of loin pain and lower urinary tract symptoms, there were many very different conditions presenting. For example, I witnessed an interesting case of purple urine bag syndrome in a patient presenting with a severe catheter-associated urinary tract infection. I also had the opportunity to observe local anaesthetic procedures performed by the residents in a separate dedicated room. I learned that a DRE-guided prostate biopsy was being performed because the transrectal ultrasound (TRUS) probe was malfunctioning. The residents explained their experiences and emphasized that it was not a procedure for the faint-hearted, recounting some painful inadvertent mishaps they had encountered.

In addition to outpatient experience, I spent time in the operating theatre, where there were two dedicated urology theatres - one for open procedures and the other for endoscopic surgery. I noticed that patients were sometimes directly admitted to the ward from the clinic for operations – for example, those who presented with acute urinary retention were admitted for TURP. One memorable case involved a livestock farmer who had travelled a considerable distance to the clinic with severe loin pain. After a CT scan revealed a 5x2cm mid-ureteric calculus, he was promptly admitted and underwent an open ureterolithotomy the following day. I had the privilege of following this patient's journey and observing the surgical procedure, which was my first exposure to this operation. In the subsequent days, I watched the patient's recovery progress as he recuperated on the ward and I was intrigued to see the en-bloc calculus wrapped around his wrist which he would later take home, a customary practice in Tanzanian culture. The experience of observing clinical practices and witnessing these unique cases allowed me to gain valuable insights into the challenges and resourceful approaches taken in delivering urological care in this setting.

One of the advantages of undertaking this visit alone was that it provided me with the freedom to get to know each resident on a personal level and this was one of the most rewarding aspects of my trip to KCMC. This allowed me to learn about their experiences, aspirations, and challenges – each resident had a unique journey that helped to shape their passion for surgery and urology. I was particularly fascinated by the story of one COSECSA resident who had relocated from The Gambia to Tanzania to pursue his Urology training. His decision was sparked by an inspiring Urolink visit to his home institution in previous years, a testament to the impact of these collaborations. Learning about the challenges he faced to return home and visit his family, with the journey taking up to two days at significant expense, left me humbled by the dedication and resilience exhibited by doctors in training in sub-Saharan Africa. Making connections with the residents I met during my trip to KCMC was immensely gratifying, with our shared experiences fostering a genuine camaraderie.

I could not leave Tanzania without immersing myself in the beauty and culture of the country. On my day off, I explored the Materuni waterfalls, Kikuletwa hot springs, and the coffee plantations nestled in the foothills of Mount Kilimanjaro - a unique opportunity to understand the art and science behind coffee cultivation and processing with members of the Chagga tribe sharing their traditional knowledge and techniques. I returned home with unforgettable memories and an appreciation for the diverse beauty that Tanzania has to offer.

Image 4:
Sunset over Kilimanjaro

The benefits of visiting LMIC healthcare settings as a trainee cannot be overstated and I would encourage trainees to seize any opportunity they may have to experience healthcare in this part of the world. Such an experience undoubtedly deepens one's appreciation and gratitude for the privilege of training, and practicing, in the UK. Witnessing first-hand the challenges faced by healthcare professionals in resource-limited settings, and the dedication with which they deliver care, instils a profound sense of humility. This exposure fosters a greater understanding of global healthcare and the pressing need for collaboration and support to bridge the healthcare disparities around the world. It was an eye-opening experience for me, and I believe that such trips have the potential to benefit other trainees as well. I remain in close contact with the residents I met during the trip, and since returning I have collaborated with the BJUI Knowledge (3) team who have very kindly arranged for all Urology residents at KCMC to receive complimentary access to their extensive online educational platform to augment their ongoing learning and development.

I would like to take this opportunity to thank TUF for their generous contribution to my trip, Suzie Venn and Steve Payne of the Urolink committee for their support and encouragement, and finally the host team at KCMC for their hospitality, particularly Chief Resident Dennis.

Images 5 & 6: Chief Resident Dennis and some of the resident team

References

1 TUF Urolink Fellowships.

Available at: https://www.theurologyfoundation.org/

2 Trail M, Thwaini A, Niang L, Aslam Z. Delivering a laparoscopic urology workshop in West Africa: our initial experience in Senegal. Urol News. 2020;1:3.

3 BJUI Knowledge.

Available at: https://bjuiknowledge.bjuinternational.com