Report on BAUS/WCE Endourology Fellowship in Sri Lanka, December 2017.

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The World Congress of Endourology (WCE) was held in London in 2015 and was supported by the British Association of Urological Surgeons (BAUS). There was a BAUS email after this meeting to announce that new fellowships were to be established. The aim of these fellowships was to allow the exchange of endourology skills and knowledge worldwide by UK trainees learning in overseas centres. I was approaching the end of my training and this fellowship appealed a great deal. I chose to visit urological units in Sri Lanka, as in my final rotation at King's College Hospital they had a proud tradition of hosting senior Sri Lankan Trainees over the past 15 years. I have been fortunate enough to work with many of the previous Sri Lankan trainees over the past seven years. I was successfully awarded the fellowship in November 2016 and spent the following eight months organising a temporary Sri Lankan medical license, registering with the medical board and addressing the logistics of living and working in Sri Lanka. I was the first UK urology trainee to go for a WCE/BAUS endourology sponsored fellowship in Sri Lanka. I aimed to develop my technique in percutaneous nephrolithotomy (PCNL) for the surgical treatment of stone disease. I understood the operative technique and had performed cases as a trainee but needed the volume of cases offered in south east Asia, with the very high incidence of stone disease. In addition, I wanted to develop more skill with regard to open and laparoscopic nephrectomy. I chose to divide my fellowship between Kandy Teaching Hospital, and the Colombo South (Kalubowila) Teaching Hospital.

I travelled to the capital Colombo on Friday 6th October 2017 and made the three hour journey by car to Kandy to undertake the first part of my fellowship. Kandy is the second largest city in Sri Lanka and the capital of the Central Province of Sri Lanka. Kandy has a population of 158,000 and the city lies at an elevation of 465 meters (1,526 feet) above sea level. Kandy Teaching Hospital is the second largest medical institution in Sri Lanka. It is a major teaching hospital serving Kandy and the surrounding districts. The hospital has over 2,200 beds, 78 wards, 10 intensive care units (ICUs) and 24 operating theatres.

I arrived on my first day and was met by my trainer, Mr. Manjula Hearth, a consultant urologist whom I have known for over seven years. The hospital was a busy, bustling hive

of activity. As we toured the hospital I started to appreciate the vastness of this hospital and sheer volume of patients treated. We went to Ward 19 the dedicated urology ward with over 80 beds and separate areas for males and female patients. I joined the urology team for ward round which was conducted in Sinhalese and English (for my benefit). We saw a range of post-operative patients with predominately stone disease. PCNL was the operation most of the patients had but there were also oncology patients and those that had urological trauma. Each patient had their own notes in a booklet with X-ray and CT films which we viewed on a light box. I realised that I would have to get used to looking at films of CT slices for each patent and there were no computers with PACS loaded. My opinion was sought from time to time on the ward round as a 'visiting specialist'. After the ward round I joined the team in the outpatient clinic. The outpatient clinic was chaotic, with over 100 patients in attendance to be seen in four hours. However, it was a wonderful teaching experience and showed me it is possible to balance service commitments with teaching junior staff. There was one consultant in the clinic and four medical officers who would come and present the patient they had just seen, review the imaging together and the consultant would give a plan. This meant that patients were rapidly seen and those in need of surgery were booked into a diary and given a date for surgery. The waiting list for PCNL was up to one year, due the sheer volume of stone disease.

At 7:30 am next day I joined the team in theatre for my first list. On reviewing the theatre lists there were 15 patients booked that day. The number of patients booked per list was typical for a theatre list in Kandy Teaching Hospital. There were three PCNLs, a laparoscopic nephrectomy, two TURPs, five rigid ureteroscopies (URS) and four cystoscopy and JJ stenting. The morning usually started at 8 am with an emergency cystoscopy and JJ stent then followed with PNCLs. I was struck by how many staff worked in theatre and the number of staff in each theatre at any one time. There were up to two theatre porters who helped to position patients and contributed to the rapid turnaround of cases. We had two anaesthetic teams to ensure that as one patient was being wheeled to recovery post procedure the next patient was being anaesthetised.

The team were very efficient and had clearly worked with each other for years. One of the interesting aspects of theatre set up was the irrigation fluid used for surgical cases. Due to financial restraints the irrigation fluid was cooled boiled water. There was an elevated metal basin with a rubber tubing that was attached to the sterile tube that connected to the scopes. It was the job of the theatre porters to ensure that the irrigation fluid was topped up frequently by tapping the drum to check the fluid level. Interestingly, the team had not seen any TUR syndrome or infections related to the irrigation. Some of the stone cases were suitable for flexible URS but due to financial constraints there was only one flexible URS and it was seldom used. This was another reason why more PNCLs were done even for smaller stones in the kidney than we would normally treat in the UK with flexible URS.

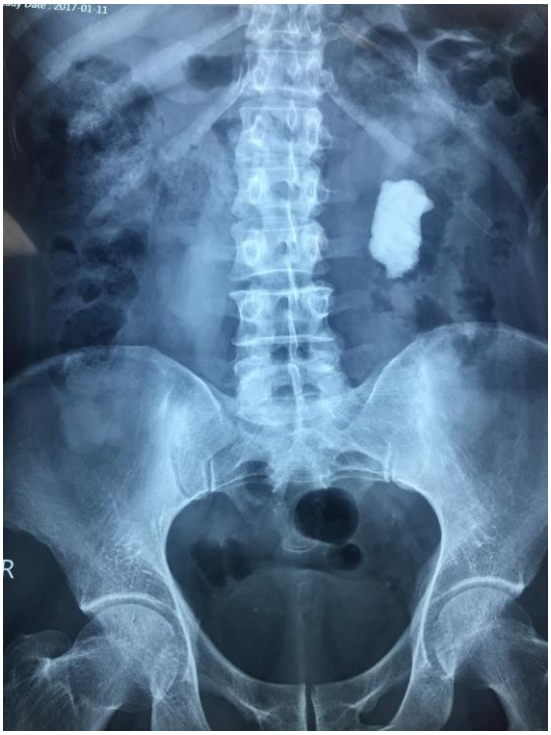
In my first week I was involved in six PCNLs. I had highlighted my training needs with the local trainers and in the first few cases I observed the technique of Consultant Urologist Mr. Kanchana Edrisinghe, who has performed over 1000 PCNLs. We agreed a modular training approach. The first step after learning their technique for positioning the patients for PCNL was to safely puncture the kidney for renal access. All of the disposable equipment such as wires and sheaths were reused, nothing was wasted. I spent time before each case reviewing the imaging and planning the puncture. Most of the PCNLs I preformed were in the prone position with metal sequential dilators to establish the tract and a pneumatic device to break the stones. The urological theatres in Kandy were generally well stocked. Standard and mini PCNL was available, with paediatric PCNLs being performed here (over 100 cases performed to date).

One of the biggest challenges I faced was communicating with patients who did not speak English and only spoke Sinhalese or Tamil. I ensured that the local trainee was able to

translate and we consented the patients together. There were at least four theatre lists a week for me to attend. Typically up to three PCNLs would be on the list together with TURBTs, ureteroscopies (URS) and an open or laparoscopic case. There were two junior trainees that had just started the rotation so I focused on the PCNLs allowing the newer trainees to gain competencies in URS and JJ stenting.

Having completed a laparoscopic fellowship at King's I was in position to support Manjula and Kanchana with the laparoscopic surgery and mentor them for a few of the cases. During my time in Kandy we had performed two laparoscopic nephrectomies, a laparoscopic pyloplasty and adrenalectomy. We discussed port position and I was able to share some of the operative videos of my technique I had developed over the past few years. I felt that I was in a position to contribute in a teaching and training capacity with regard to laparoscopic urological surgery. In addition, I gave two lectures to local doctors on common urological conditions, with one of the lectures remotely screened to six hospitals in the region (I was only informed on the day of the lecture the size of the audience). I was also able to refresh my open surgical skills during my time in Kandy.

One of the most memorable operative experiences was performing an open pylolithotomy for a five centimetre stone in the renal pelvis. This operation is not done in the UK but it was very insightful to perform and learn the approach and operative technique. There were



kidney cancer cases and I was able to perform four open nephrectomies with the trainees. My time is Kandy was a great experience. By the end of the month I had performed over 40 PCNLs in both the prone and supine position in Kandy, together with the open and laparoscopic cases I was involved with.

After my one month rotation in Kandy I travelled to the capital Colombo for the Sri Lankan Association of Urological Surgeons (SLAUS) meeting. This meeting was joint with the Royal Society of Medicine (RSM) section of Urology and BAUS. I took part in the pre-congress workshop by assisting with a live laparoscopic nephrectomy. The conference was hosted in the famous Galle Face Hotel in Colombo.

Once the conference ended I bid my UK colleagues farewell and headed north to the ancient city of Anuradhapura. I spent a day operating with a former colleague, Consultant urologist Mr. Thevarajah Aravinthan at the Anuradhapura Government Hospital. Anuradhapura Government Hospital is a former military hospital built by the Japanese. It was very well equipped with all of the latest equipment including ultrasound device for PCNL. There were three open cases and a prone PCNL booked for me to do. Once the patents were seen pre operatively we started with a PCNL for a staghorn stone. I was able to do the puncture successfully and clear the stones, but this case was very challenging as the stone was very hard. The use of nephrostomy is not routine in Sri Lanka with uneventful procedures going to the ward with a ureteric catheter in situ but without a nephrostomy tube post procedure.

The next day I travelled two hours north of Anuradhapura to a small town called Vavuniya to visit an old friend, Urologist Mr. Vickneswaran Kathirgamathamby. I found it very interesting to visiting his unit as it had only recently been established as a urological unit. He was waiting for delivery of basic urological equipment. All cases were done with an open approach. I performed an open nephrectomy, an open pyloplasty in a child and an open extraction of an impacted ureteric stone.

The Fellowship was not all hard work. During my free time on the weekends I was able to visit many of the popular tourist sites including Kandy Lake and the Buddhist Temple of The Scared Tooth. I climbed the world heritage site Sigiriya Rock and watched the breathtaking views for miles around on the summit. I visited the beautiful Amaya Hunas Waterfalls and a tea plantation. I was able to visit some of Sri Lanka’s coastal resorts in Trincomalee in the East and Gallo in the South. One of my highlights was visiting Udawalawe National Park to go on an elephant wildlife safari.

The final part of the fellowship was spending time with Professor Srinath Chandrasekera at the Colombo South Teaching Hospital (Kalubowila) in the capital city Colombo. Prof. Chandrasekera had organised a fantastic teaching programme for me. He had arranged

parallel theatre lists with PCNL cases. It was an intense day but with the guidance of Prof Chandrasekera and his team I was well supervised and guided though six cases in total. The cases selected were variable in level of difficulty but it was good for me to operate on more challenging cases such as a complete staghorn stone and stone in a calyceal

diverticulum. It was a brilliant experience and one that I will never forget.

The fellowship experience was truly amazing! I am fortunate to have been selected as one of the first BAUS/WCE endourology fellows. I have achieved all of my objectives such as gaining competency in performing PCNLs. I have met some wonderful people during my time in Sri Lanka and made some lifelong friends. In total during my six weeks in Sri Lanka I performed over 50 PCNLs, 10 open nephrectomies/pyloplasties, five laparoscopic procedures and one complex vesico-vaginal (VVF) repair. These numbers for PCNL would be one of the highest in the UK with regard to volume in a year by a single surgeon, and this was achieved in six weeks. As I reflect on the overall experience I feel that if possible all trainees should leave the UK for period of training before starting consultant jobs. It has given me more confidence in my ability, a break from the stress and strains of the NHS and the ability to test oneself in a different environment. This fellowship comes highly recommended to all trainees and new consultants who want to consolidate their operative numbers in PCNL and have a truly amazing life experience.