BAUS Endourology Residential Operating Course Report

6-7th November 2023

Southampton General Hospital

Convenor: Professor B Somani

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Background

The BAUS Endourology Residential Operative course offers a unique opportunity for trainees to develop technical operating skills under the supervision of an expert faculty. The course has previously been run annually however due to the COVID pandemic this is the first course for a number of years. The course focuses on the operative management of upper urinary tract calculi and benign prostatic hyperplasia. Applications for the course are competitive and are aimed at trainees in the final training year. The 2023 course was held at Southampton General Hospital and convened by Professor Somani.

Pre-course meeting 5th November 2023

In the evening prior to the first day of the course the trainees met with Professor Somani to discuss the timetable for the course itself. It was an opportunity to address any practical considerations as it is challenging to operate in an unfamiliar environment with different equipment and a new theatre team. It was explained that for the duration of the course a member of faculty will be scrubbed with the trainee for each case to ensure patient safety.

Day One 6th November 2023

The trainees and faculty arrived at 0730 and located the patients for theatre. Faculty and trainees allocated to patients reviewed the notes, imaging and recent investigations for each patient before discussing the plan for each case. Patients were consented by the operating trainee and assigned faculty supervisor. In addition to the assigned faculty for each case there were additional members of the faculty which moved between the two theatres providing additional supervision and guidance. At the start of each case faculty and trainees completed the appropriate WHO checklist. There were two percutaneous nephrolithotomy (PCNL) cases in one theatre, one for the morning and one for the afternoon and in the second theatre there were two ureteroscopies in the morning and two transurethral resections of prostate in the afternoon. At the end of each case the operation notes were completed by faculty and trainees with feedback provided on an individual basis. During the lunch break faculty and trainees attended the weekly stone MDT held at Southampton. Each case was discussed and trainees and attending faculty were invited to suggest management plans. At the end of the day all patients were reviewed by the operating team to discuss what had taken place and next steps in their management. The course dinner was held at the Chilworth Arms in the evening which was a great opportunity to socialise with the faculty and Southampton Urology department.

Day Two 7th November 2023

On the second day the faculty and trainees arrived at 0730 to review the patients notes and imaging and to take consent. The plan was to undertake four ureteroscopies in one theatre and four TURP in the second theatre. The first cases started on time in both theatres. Unfortunately one of the ureteroscopies was cancelled the previous day by the anaesthetist due to a high HbA1c and a second was cancelled on the day as they were unwell. They were able to be replaced with two emergency cases who were admitted overnight with ureteric colic, a third emergency admission was also considered for theatre but were unfit due to persistent fast AF. The TURP list was affected by the complexities in both bed allocation and patient issues. Gaps between cases led to opportunities for further detailed case discussions and informal career advice.

Course feedback

The residential course is a fantastic opportunity for trainees to further their own technical skills with the observations from an expert faculty. Operating in an unfamiliar environment provided an additional challenge however the faculty and operating teams were very welcoming and made this transition smoother. The day to day challenges within the NHS of bed availability and case cancellations and how to manage this added to the non-technical element of the course. The trainees have all written their own feedback which is detailed below.

Trainee Comments

David Thurtle

The course felt representative of how I'd imagine the first couple of days as a consultant in a new centre would be. At once being both daunted by unfamiliarity and excited by subtle new challenges to familiar cases. Despite being more familiar with supine standard PCNL, my

first case was a prone mini-PCNL, similarly the bipolar TURPs required use of Storz kit I'd not used elsewhere and indeed was a return to a procedure I've not done for some time. The ureteroscopic case again used a different access sheath, and an alternative single-use scope to what I use in my centre. These differences allowed an opportunity to trial different pieces of equipment, and provided reassurance that one can swiftly adapt. Attending the course in a new deanery also meant meeting new colleagues and sharing regional practices and new ideas in discussions around and within cases.

The course was very well organised and supported with numerous faculty present throughout, and clearly a great amount of work had been done in advance to select, prepare and appropriately counsel patients. It provided a rare but invaluable opportunity to operate 'away from home' and gain personalised feedback. Another highlight of the course was meeting with trainees from another part of the country, with the opportunity to interact outside of the hospital and over two lovely meals.

It was a pleasure to be part of this course and I would strongly recommend it to trainees considering it in the future, or indeed other centres thinking of hosting it.

Randeep Dhariwal

We were warmly welcomed to Southampton the evening before the two day course. This is where we discussed the outline and plan for the course which included the operative cases which had been carefully planned.

Immediately it was very impressive how organised the course was from the outset and it was clearly apparent a lot of time had gone into organising the two days.

On the morning of day one, we met the team to consent the patients and reviewed any relevant investigations. We were arranged into two groups of two which worked very well. Our first case was a mini-PCNL within the hybrid theatre which had an impressive CT arm and had the expertise of interventional radiology for the puncture and access.

We started with a supine position on the operating table with a rigid cystoscope to enter the bladder. This was limited by the high bladder neck and we switched to the flexible cystoscope. Once within the bladder the left ureteric orifice was located and sensor wire inserted up to the kidney before the ureteric catheter was positioned. After liasing with the interventional radiologist we were mindful of the ultrasound guided puncture and so did not Inject any contrast to avoid degrading the ultrasound image with air. The case was one of a 27mm stone within the renal pelvis at 480 Hounsfield units. On entry into the kidney via a lower pole puncture we found a stone accommodating the majority of the renal pelvis and one which had surely increased in size. We were able to work together between the two trainees to take it in turns to laser the stone which worked very well. Throughout the case we received tips and tricks including the use of the vortex to drain fragments. We used a 17Fr sheath with a 365 laser via the mini nephroscope. Once the stone was clear we decided on leaving the ureteric Catheter overnight attached to the urethral catheter and no covering nephrostomy was required.

We were able to attend the stone MDT during the lunch time where a ureteroscopy case was identified for day two. Our afternoon cases were divided into a TURP each. We had the opportunity to consent our patients and then completed our team brief. Once the patient was on table we completed the WHO checklist and whilst scrubbing for the case I noted the prices for different equipment was listed above the washbasin to act as a visual aid and reminder to be mindful when requesting equipment to be opened. The prostate was approx 60cc and bipolar resection was performed with the Olympus resectoscope before removing the chips and completing haemostasis. The drainage bag for the 3-way catheter was unique as it included a hand pump for bladder washout which I had not used before. On completing the day, the post-op patient from the morning for mini-PCNL was reviewed and looked well with complaints of slight discomfort. The TURP patient's urine was draining clear and he was well.

The next morning we started by reviewing the post-ops and all patients were doing well for discharge. We then consented the morning cases, with a ureteroscopy case each. At the team brief I noted we had attendance from the radiographers which was a much welcomed addition and not something I am used to. The case I performed was a 10mm stone up in the kidney. At the time of the ureteroscopy the stone had dropped down to the mid ureter and was laser fragmented. The N-gage basket which I do not use commonly was available and helped clear fragments from the ureter leaving the patient stone free. This was confirmed with flexible ureterorenoscopy. In the afternoon we added an emergency case from the ward as a patient from the list was feeling too unwell to attend. The patient had an obstructed distal ureteric stone, on inserting a guide wire some debris did drain down but we were able to persevere and basket the stone away leaving the patient stone free with no need to attend again for a further anaesthetic procedure.

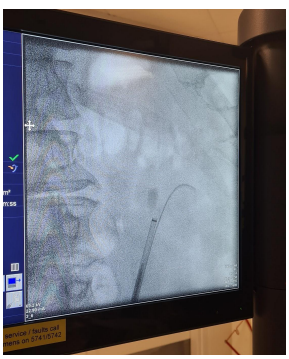
The two days allowed an opportunity to discover and learn new techniques, utilise new equipment and also see many similarities in techniques. The importance of being able to lead the team and be clear in any instructions was key in ensuring safe operative management, even in an unfamiliar environment. I believe it was safe to say we thoroughly enjoyed these two days and learnt new techniques we will take forward in our armamentarium.

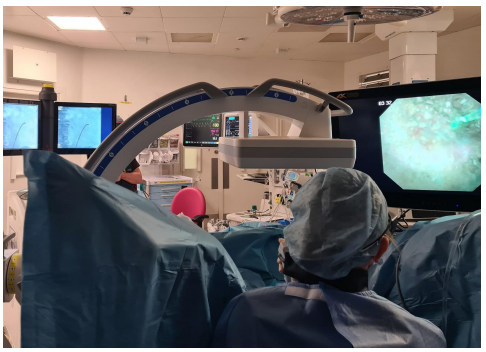
Louise Paramore

Day one started with joining the faculty to meet and consent the patients. My allocated patient for the first morning was a 80 year old male patient with a large 11mm distal right ureteric stone identified on imaging for visible haematuria. A semi-rigid ureteroscope was inserted into the distal ureter and the stone was identified. Initially the stone was fragmented with thulium laser in situ, but after approximately 50% of the stone was fragmented due to impaction it was increasingly difficult to reach the stone. The challenges were discussed during the case with the scrubbed consultant, other trainees and unscrubbed faculty. Attempts at manoeuvring the scope and moving the stone with the Dakota basket failed. The case was handed over to the scrubbed consultant and the stone was cleared with a single-use flexible ureteroscope. Over lunch we joined the stone MDT where a number of interesting cases and possible management were discussed with radiologists, urologists and senior members of nursing staff who manage and deliver ESWL. In the afternoon myself and another trainee shared a prone PCNL for a 2cm stone. Access was gained by consultant radiologist Dr Bryant and the stone was successfully cleared with the holmium laser. On the second day I started with a bipolar TURP for a 40cc prostate for a patient with high pressure chronic retention using the Storz bipolar equipment. In the afternoon I was able to undertake a ureteroscopy on a patient admitted following ESWL with 9mm stone fragments in the distal ureter, 11mm in the upper ureter and further smaller fragments in the lower pole. I started with a semi-rigid ureteroscope and cleared the ureter with a combination of thulium laser fragmentation and using a Dakota basket to remove fragments. The semi-rigid was exchanged for a flexible ureteroscope and the thulium laser was used to dust the stone fragments. The patient was visually stone free at the end of the case.

The course was well organised and ran very smoothly despite the everyday challenges faced in the NHS. During the course I really valued the opportunity to discuss challenging aspects of cases and to learn from experienced colleagues picking up tips and tricks from them and receiving personalised feedback throughout and after each case from multiple members of the faculty. The presence of the sponsors was useful as the equipment, such as the bipolar and thulium laser fibre, were different to those used previously and it was helpful to discuss the difference in settings to obtain certain effects. It was an invaluable opportunity to meet and connect with like-minded colleagues both in the hospital and over dinner. It has been my pleasure to be a part of this edition of the course and I would thoroughly recommend this course to future trainees.

Danielle Whiting





On day 1 I was allocated to perform the ureteroscopy on a patient who was pre-stented with 6mm distal and 14mm proximal ureteric stones along with two smaller renal stones (2mm and 4mm). With the supervising consultant scrubbed I performed a semi-rigid followed by flexible ureterorenoscopy treating the stones with Thulium laser. The second case was a shared 2cm PCNL with another trainee. Access was achieved by the interventional radiologist Dr Bryant and we were then able to share treatment of the stone with the Holmium laser. On day 2 I performed a bipolar TURP on a patient with a 60cc prostate and troublesome lower urinary tract symptoms. As is being experienced in every hospital at the moment bed pressures led to some cancellation of cases on day 2, the Southampton team worked hard to find replacement cases. Although there wasn't a second case for me it was also helpful to be able to watch a colleague operate picking up tips from them and discussing recent difficult cases with the supervising consultants.

All procedures were ones I have done before and I was familiar with the use of both the Thulium and Holmium lasers. It was reassuring to know that the Southampton team take the same operative approach as I have been taught to complete these cases. In addition a benefit of the course was not only being directly supervised by experienced stone surgeons but also having the availability of the reps who were able to give advice particularly in relation to laser settings and new equipment coming to market. This course was of huge educational value to pick up operative tips but also make contact with like-minded colleagues and share experiences.

Acknowledgements

Finally we would like to thank all those who helped deliver a successful course.

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