Keith Yeates Medal / Shackman Report

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Thiel cadaveric HOLEP Masterclass, Surgical Skills Centre, Ninewells Hospital, Dundee

The decision to learn HOLEP seems like a natural progression for my endourological skills. I can now manage the smaller prostates with TURP, however, when confronted with a large sized prostate, this will have to be staged. This provides less than optimal outcome for a surgeon with the current pressures on waiting list. The patient also needs to have anaesthesia twice. Luckily, I am in a unit where HOLEP is being performed. I discussed my aspiration with the HOLEP surgeons and they had suggested a course. There are several online videos and workshops. However, this would not have provided anything more than intellectual stimulation with no practical skills or feedback provided.

I came across the course in Dundee by referral by one of the HOLEP surgeons. The course appeared to be just what I wanted. It was a cadaveric course with practical hand-on approach with proctors providing immediate feedback. A quick search of the map was performed to see where Dundee was and I calculated the logistics of attending the course. Next, was to check the rota to ensure I am not on duty during this period before requesting the required leave. This has to be at least 6 weeks ahead and the window of application was fast closing. It all looked good, I made payment for the course and booked the necessary leave.

I briefly mulled the idea of driving to the course centre in Dundee but was not enthused with the idea of being behind the wheel alone for more than 5 hours. This will be possibly after a long day at work and fatigue will be dangerous for my safety. Taking a

train was what I settled for eventually. This is a greener alternative although there were no direct trains to Ninewells training centre. I would have at least one changeover in Edinburgh. In total, the journey took about 5 hours. There was relief as we crossed the last bridge into Dundee and seeing 'terra firma' on the other side of the bridge. There was a Volkswagen outlet on the left and a large Tesco store on the right. I took the taxi to the hotel from the train station, there was no Uber in Dundee. Having a long day ahead the next day, I took an early night rest in great anticipation of the course starting the next day.

The next day started with initial paper work at the centre. We had provided our laser safety certificates before the course to ensure we were familiar with working with lasers. Some initial paper work were signed. These included the rules of the course, working with cadavers and safety using lasers. Thereafter, the day started with introduction and course outline by the organizer Mr Kalpee. He shared his personal inspiration and journey towards organizing a course that would deliver practical skills in HOLEP. The course was seen as a practical and effective way to start skill building in HOLEP which has a steep learning curve as there is high rate of early incontinence.

The course was organised into lectures, video presentation of technique, simulation, practice on animal model and cadaver respectively. I liked the course because it gave priority to practical aspects of skill development. It also covered setting up a HOLEP unit which is a non-technical skill but critical to the success of the procedure. Most of the didactic lectures took place in the morning. It employed various techniques to deliver the information ranging from a presentation style to a discussion style with the faculty. Topic covered included treatment options in prostate enlargement to

complications of HOLEP and how to manage them. The instruments required to perform HOLEP procedure safely such as the Kuntz resectoscope, high powered laser equipment and morcellators were discussed.

Furthermore, basic techniques were delivered through didactic teaching usings slides and several practical videos. The videos included edited and unedited versions. Sometimes running commentary is available, I find this most useful as it offers unusual insight into the mind of the surgeon at the time of a manoeuvre. A modular system of learning HOLEP was advocated and employed by the course. This included learning a two or three lobe technique before progressing to the en-bloc technique. The first day of the course focussed on the three-lobe technique both on the simulators and animal model whereas the second day was focussed on the en-bloc technique.

The practical aspects of the course started with the simulators. Various configuration and sizes of prostate was available and practical feedback was provided. This included resection time, percentage of prostate resected, safety, capsular breaches and bladder neck undermining. It also allowed one to judge the right distance of the laser for tissue effect. The advantage of this stage is that it can be repeated until one is proficient. To make it more interesting, a competition for the highest scorer on the simulator was part of the course on the second day.

The other practical aspects of the course included morcellation, enucleation of an animal model and cadaveric enucleation. I found the cadaveric enucleation most useful. Apart from the lack of bleeding, this is the closest to the real surgery. The cadavers were in a good state with the thiel preservative although the tissues were a little bit stiffer. Introduction of the resectoscope required a generous amount of

lubricant to aid the process. The tissue planes were surprisingly well preserved and it was possible to delineate the capsule from adenoma. This seems to be a critical learning point in performing HOLEP. Some ideas on the simulator will not work on human tissue. The proctors were available to provide useful tips and guidance to complete the enucleation.

Morcellating as a skill was also practised using chicken meat in a plastic model. This provided a first-hand experience of morcellating. Tips to morcellating safely such as adequate haemostasis and maintaining a full bladder was emphasized. To maintain a full bladder, 2 sources of irrigation inflow is required. The only outflow at this time will be the suction on the morcellator. This gives a reasonable margin of error. More importantly, how to troubleshoot the morcellation in case of malfunction was also demonstrated. The skill to load and reload the blade of the morcellator was perfected as this may be required in case of a malfunction. Various techniques to clear the blade of the morcellator were explained and the final step will be to change the blade. It was important to know what to do in case of technical failure and the morcellation cannot happen at the time of the enucleation.

Reflecting on the course, this was a well-organized course. In my humble opinion, the course objectives were met. The course provided practical hands-on experience in HOLEP. There was ample opportunity to interact with the trainers. The course dinner was one of such fora which afforded opportunity to reflect on the learnings of the day. We also listened to how others started their HOLEP journey and were able to set up HOLEP service in their trusts.

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