EUROPEAN UROLOGICAL SCHOLARSHIP PROGRAMME (EUSP)

[13-month visit: 2 March 2015 - 22 March 2016]

Department of Urology of the Saint Augustin Clinic

Bordeaux, France

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Introduction

The Department of Urology of the Saint Augustin Clinic in Bordeaux is a centre of excellence in the field of mini-invasive urological surgery since 1992. It was one of the pioneer centres to start and develop laparoscopic urological surgery in France, especially for prostate cancer treatment. In 1997, it was one of the first teams in Europe to perform laparoscopic radical prostatectomy.

The clinic

The clinic includes 174 beds, 113 of which are for surgical services. It has three operating rooms for cardiac surgery and seven rooms for general surgery including urology.

The urology team includes a total of eight senior urologists. The main areas of interest are uro-oncology, functional urology (especially genito-urinary prolapse and female urinary incontinence), endourology (ureteroscopy and flexible ureteroscopy), BPH surgery (TURP, green light prostate vaporization, HOLEP), prostate cancer focal therapy.

The surgical activity doesn’t only take place in Saint Augustin’s operating theatre but also in other three clinics in the Bordeaux area: Polyclinique Jean Villar, Clinique Tivoli and Clinique Mutualiste.

The Saint Augustin and Tivoli clinics are located near the city centre while the other hospitals are peripheral. The operating rooms are fully equipped with the newest technological resources for innovative urological procedures, especially in the areas of mini-invasive surgery and endourology. Saint Augustin’s operating theatre is equipped with two da Vinci Si Surgical Systems (see Fig.1), one 3D STORZ laparoscopic column and holmium laser. In the other clinics, green light laser, holmium laser and flexible ureteroscopy are available.

The clinics are structured as follows:

The Saint Augustin Clinic has a total of 65 urological beds, outpatient service (in which flexible cystoscopy, transrectal prostate biopsy, urodynamic examination are routinely performed), and seven general surgery operating rooms in which urological activity takes place (at least five operating sessions per day).

The Jean Villar, Tivoli and Mutualiste clinics have a total of 35 urological beds. Each clinic has one operating room dedicated to urological activity (two sessions per day) and outpatient service. Extracorporeal shock wave lithotripsy service is also available.
I had the opportunity to spend a period of 13 months, from 2nd March 2015 to 22th March 2016, as a clinical fellow under the tutorship of Dr. Richard Gaston and Dr. Thierry Piéchaud. Dr. Gaston is well-known for being one of the pioneer of laparoscopic surgery in urology. Prof. Piéchaud is a member of the ERUS board and director of the IRCAD courses for laparoscopic training in urology.

My principal areas of interest were genito-urinary prolapse surgery, urinary incontinence and uro-oncology. During this period, I stayed at a fully furnished room in a house located near the Saint Augustin Clinic. The host centre didn’t provide facilities concerning the accommodation, however it was very easy to find flats or rooms for rent in Bordeaux, being an university town. The city has a very efficient public transport, so it was quite easy to move from a hospital to another. The host centre offered free lunches at the clinic restaurant.
Fig. 1 da Vinci Si Surgical System at the Saint Augustin operating theatre
Scholarship activities
The clinical programme was based on following the surgical activities. Every day, each fellow worked with one of the eight surgeons as an assistant.

Each operating room has the following staff: one anaesthesiologist, one nurse anaesthetist, one nurse, one scrub nurse assisting the surgeon, the senior surgeon and the assistant. Strict protocols are applied to prevent infections and to guarantee patient safety.

The one-year fellowship programme
From 1 to 3 months
During the first months, the fellow has to observe all the steps of a laparoscopic or robotic procedure. This includes observing and learning the table preparation, the patient positioning and the surgical steps of the procedures which are performed by the senior urologist assisted by a professional assistant (who is a trained nurse).

From 3 to 6 months
During the next phase, the fellow actively takes part in the surgical procedures as an assistant.

From 6 to 12 months
In this phase of the programme, the fellow is completely independent as the assistant to the majority of the laparoscopic and robotic procedures. He/she regularly assists the senior surgeon. Sometimes, depending on his/her surgical skills, he/she is allowed to perform small parts of the surgery as first operator under the supervision of the senior surgeon.

Research activities
During my fellowship, I was also involved in clinical research activities. I updated and analysed two datasets of 145 and 500 patients treated with laparoscopic/robotic radical cystectomy for muscle invasive bladder cancer and with laparoscopic sacro-colpopexy for urogenital prolapse, respectively. I was also in charge of preparing some presentations and videos for congresses.

In January, we had an internal meeting with the Anaesthesiology and Oncology teams in which we discussed the perioperative and oncological management of patients treated with robotic-assisted radical cystectomy for muscle-invasive bladder cancer. I was in charge of presenting the perioperative and post-operative results of our dataset.
Fig. 2 Trocar placement for robot assisted radical prostatectomy (RARP)

Fig. 3 Trocar placement for left side robot-assisted partial nephrectomy (RAPN)
Fig. 4 Trocar placement for left side robot-assisted radical cystectomy (RARC)
Surgical curriculum

During my fellowship programme, I assisted as second operator to more than 200 laparoscopic and robotic surgical procedures. I also assisted in many endoscopic procedures.

As first operator, I performed above all endoscopic and small surgeries. Sometimes I had the opportunity to perform some steps of robotic and laparoscopic surgeries as first operator.

As an assistant, I performed the following surgical procedures:

- Robot assisted prostatectomy
- Laparoscopic sacro-colpopexy
- Laparoscopic radical nephrectomy
- Laparoscopic pyeloplasty
- Laparoscopic prostate adenomectomy
- Robot-assisted partial nephrectomy
- Robot-assisted nephrectomy
- Robot-assisted radical cystectomy with neobladder reconstruction and/or Bricker reconstruction both in the male and female patients; nerve-sparing robot assisted radical cystectomy
- Laparoscopic retroperitoneal lymphadenectomy
- Laparoscopic adrenalectomy
- Robot-assisted ureteral re-implantation
- Transvesical prostatic adenomectomy
- Flexible ureteroscopy
- Percutaneous nephrolithotomy
- Artificial urinary sphincter positioning
- TOT
- Male sling positioning
- Orchietomy
- Hydrocelectomy
- Circumcision

As first operator, I performed:

- Rigid ureteroscopy + lithotripsy
- Diagnostic rigid ureteroscopy
- Double-J stenting
- Cystolitholapaxy
- Resection of bladder tumor
- TURP
- Hydrocelectomy
- Endoscopic urethrotomy
- Circumcision
- Orchietomy
- Vasectomy
- Percutaneous nephrostomy positioning
- TOT
- Botulinum toxin bladder injection
- Laparoscopic closure of the peritoneum during sacrocolpopexy
- Dissection of the vesico-vaginal plane during sacrocolpopexy
- Mesh placement during laparoscopic sacrocolpopexy
- Closure of the prostate capsule during laparoscopic adrenalectomy
- Vesico-urethral anastomosis and Santorini plexus control during robot-assisted prostatectomy
- Seminal vesicle dissection during robot-assisted prostatectomy

Fig. 5 Trocar placement for laparoscopic sacrocolpopexy
Conclusion
My experience with the urology group at the St. Augustin Clinic was certainly rewarding. I had the opportunity to expand my clinical and surgical knowledge in different fields of urology (not only uro-oncology but also functional urology and urolithiasis).

Before starting in Bordeaux, I already had a small experience in robotic and laparoscopic surgery. However, I had the opportunity to improve my practical skills in this field even though I didn’t perform any entire major surgical procedure. What I appreciated the most during my training period was the step-by-step approach to surgery. In my case, this was useful especially for endoscopic procedures since I never had the chance to get this kind of training during my residency programme.

I recommend this experience especially to young urologists or residents who wish to have a complete knowledge of laparoscopic and robotic surgery and who wish to be independent as assistant surgeons.

Fig. 6 “Mirroir d’Eau”, Place de La Bourse, Bordeaux