

We retrospectively assessed the safety of XCEL trocar (Ethicon Endo-Surgery) 12 mm blunt-tipped optical access trocar in 350 women.

The mean age of the patients was 41.0±9.3 years. The mean height was 158.4±5.3 cm and the mean body weight was 57.4±8.8 kg. The mean BMI was 22.9±3.4. 116 patients (33.1%) had a history of abdominal surgery. Among these 116 patients, 35 patients had undergone 2 more abdominal surgeries. Complications are as follows; ureteral serosal injury (1 case), readmission due to gastroenteritis (2 cases), readmission due to fever (1 case), readmission due to bleeding at vaginal stump (1 case). But, there were no complications associated with XCEL trocar.

Trocar related complications associated with use of XCEL™ trocar are rare. XCEL trocar can be safely used.

### P.13.6

#### **Thermal endometrial ablation, to repeat or not to repeat?**

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We conducted an audit at Fairfield Hospital on thermal balloon ablations (TBAs). This highlighted the use of repeat TBAs. Literature review demonstrated limited guidance on repeating TBA.

Menorrhagia is experienced by 4–9% of women. Before the 1990's the only definitive treatment was a hysterectomy of which 60% of women underwent. Once ablative techniques were established the number of hysterectomies significantly declined. We conducted an audit of TBAs and found a small number of patients had undergone repeat procedures.

Retrospective audit looking at all TBAs carried out in 2009–10.

We looked at 80 notes. 8 women had a repeat TBA. Repeat procedures were conducted between 18 months to 10 years after the first. The primary ablation was typically considered a 'success' however, menorrhagia returned. The main indication for re-treatment was unsuitability for surgery, usually due to body mass index (BMI). The patients were keen for a repeat procedure, despite higher risk of complications. The results have been positive, but the numbers are small.

There are few studies on repeat TBAs and consequently few guidelines. Manufactures are undecided on advising clinicians. It is an important issue as 2 in 5 women will require further treatment within 5 years of their first treatment. The current repeat TBA rate is 5–11%. Advantages include, the use of TBA in women who are unsuitable for surgery, success rates and improving symptoms to 'buy time' before the menopause. However, the cost difference between a hysterectomy and a repeat TBA narrows with time, the risk of complication is three times higher and failure of a repeat procedure will still require a hysterectomy.

Currently we practice via case by case. However, as patients continue to re-present, we need evidence, from a risk management perspective, to support repeating TBAs and subsequently gain support from Clinical Governance leads.

Session P.14

\* Robotics \*

### P.14.1

#### **Improving patient turnover with robotic surgery**

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Robotic surgery gives surgical benefits but is costly and can be more time consuming. Efficiency and turnaround of patients in theatre therefore becomes of paramount importance. The initial experience of a robotic program at a district general hospital is presented.

Robotic surgery offers surgical benefits such as a better surgical view, increased 'dexterity', greater precision, the benefit of 3 operating 'arms', easier intra-corporeal suturing and less surgical fatigue. Robotic surgery is still evolving but it is likely that it will become an important tool in the surgical armamentarium. However, set-up, docking and un-docking can take longer than open and laparoscopic surgery.

The experience of the first 145 cases at Frimley Park Hospital were analysed with regard to factors affecting patient turnaround. Many factors influence the efficiency and turnaround of open, endoscopic and robotic surgery. Specific to robotic surgery important factors to address are: patient selection, type of operation, training, teamwork, robotic set-up, docking times, operating efficiency and undocking.

Suitable patients and surgical cases should be chosen appropriate to the surgeon's level of experience. Surgeons and theatre staff need to be appropriately trained to use the robot and initially mentored by an Intuitive representative. A trained and consistent theatre team ensures more efficiency if team members. They should have specific understood roles and be familiar with setting up the robot, docking and undocking. The surgeon can be more efficient at the console if they are familiar with laparoscopic procedure, understand and can use the controls and can maintain a good surgical view and haemostasis. Audit of all the robotic procedures enables trends to be analysed and further improvements made.

### P.14.2

#### **LPS robotic-assisted surgery for endometrial cancer: preliminary results of the side-docking approach**

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To evaluate the feasibility of side-docking approach with only two operative robotic arms using the da Vinci Robotic Surgic System for the treatment of endometrial cancer.

Robotic surgery is the latest innovation in the field of minimal invasive surgery. Robotic treatment of endometrial cancer is well recognized and it seems to improve dexterity and depth perception and reduce counterintuitive motions.

Between June 2010 and July 2011, a total of 12 patients affected by stage I endometrial cancer were prospectively enrolled on the study. LPS robotic-assisted extrafascial hysterectomy + frozen section ± pelvic lymphadenectomy were performed with left side docking approach, two operative robotic arms and uterine manipulation.

Endometrial carcinoma stage: 4 stage IA G1, 5 stage IB G2 and 3 stage IB G3.

Median operating time was 165 minutes. Systematic pelvic lymphadenectomy was performed in 9 cases. Median number of lymph nodes removed was 25. No intraoperative complications.

The treatment of endometrial cancer using the Side-docking of the Robot with only two robotic operative arms is feasible and with good results in term of operative time, complications, number of removed lymph node and costs.

#### P.14.3

##### **Robotic hysterectomy learning curve of two laparoscopic experienced gynecologists**

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The learning curve supposedly is one of the advantages of robotics. To verify this we recorded the chronologic development of operating times from the first to the most recent robotic hysterectomy for 2 experienced gynecologists. The resulting learning curves are well in agreement with learning curves from other robotics studies with plateaus between 20–50 cases at similar operating times.

Robotic surgery has become a well established procedure. Often an improved learning curve is cited as an advantage.

The aim of this study is to establish the learning curve of robotic hysterectomy for two surgeons from the Kantonsspital Aarau.

With data from a prospective study we recorded the development of operating times from the first to the most recent robotic hysterectomy for 2 experienced gynecologists. Mean operating times for the first 5 (group1) and the last 5 surgeries (group2) were compared. Also development of docking times were recorded.

Operating times ranged from 192 to 48 min. For surgeon1 mean operating time was 108 (all surgeries) with 103 (group1) respectively 107 min (group 2). Mean docking time was 9.1 (group 1) respectively 8.8 min (group 2). For surgeon 2 mean operating time was 100 (all surgeries) and 114 (group1) respectively 88.5 min (group 2). Mean docking time was 9.8 (group 1) and 8 min (group 2).

A different development of the learning curves for both surgeons was seen. This could be explained by a different absolute number of cases. Both flows are well in agreement with learning curves from other studies on the robotic approach with plateaus between 20–50 cases. Compared to other publications operating times for both surgeons are quite low due to the experience in laparoscopy. Thus potential for improvement is limited and operating times probably correlate to other factors like uterus size and technique.

#### P.14.4

##### **The introduction of robotic surgery into a district general hospital**

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Robotic surgery offers the surgeon and patient a number of potential benefits. Frimley Park Hospital is one of 24 UK hospitals to have purchased a da Vinci robot. Two gynaecologists, two colorectal surgeons and one urologist have been trained. Between them they have performed a total of 145 cases since April 2009. The initial robotic utilisation and case-load is reported.

Robotic surgery provides advantages such as increased 'dexterity' and precision, a 3-Dimensional view, enhanced camera control, three operative arms and less surgical fatigue. Surgeons from a variety of disciplines have realised the benefits of robotic surgery over open and laparoscopic surgery and are in the process of purchasing or starting up a robotic program.

The initial use of a da Vinci robot since April 2009 at a district general is analysed. The number and type of operations is reported.

Five surgeons have been trained to use the da Vinci robot; two gynaecologists, two colorectal surgeons and one urologist. Key theatre staff also received intensive training alongside the surgeons. One hundred and forty-five operations have been performed; 46 gynaecological, 39 colorectal and 56 urological. All surgeons have been enthusiastic about the surgical and patient benefits and the types of cases being performed are expanding.

The role of the da Vinci robot is evolving. It has applications for a number of surgical disciplines. Surgeons and theatre staff first need to be appropriately trained to perform robotic surgery. They then need to select appropriate patients for surgery appropriate to their level of skill and experience. Use of the robot needs to be incorporated into the theatre timetable, surgeons' current job plan and case-load.

Session P.15

\* Single Access Surgery \*

#### P.15.1

##### **A case of salpingectomy in less surgery for GEU in obese woman: no more limits?**

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Until now, one of limitation of LESS Surgery is considered the patient's body mass index (BMI). The literature describes that LESS surgical approach can be successfully used to treat ectopic tubal pregnancy in selected patients, with a body mass index under to 28.2 kg/m<sup>2</sup>. This case report shows the possibility to perform