

# 11<sup>th</sup> Annual SERGS MEETING

FINAL PROGRAMME

26<sup>th</sup>-28<sup>th</sup>  
SEPTEMBER 2019,  
SOFIA, BULGARIA



Society of European Robotic  
Gynaecological Surgery



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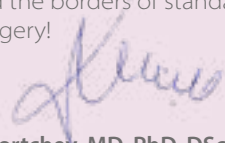
Dear Colleagues,

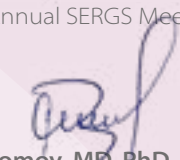
It is a great pleasure and honor for us to welcome you in our historic capital Sofia for the **11th Annual Meeting of the Society of European Robotic Gynecological Surgery (SERGS)**, which will take place from 26th to 28th September 2019 at Sofia University "Saint Kliment Ohridski". The scientific forum is organized under the auspices of Medical University – Pleven and the Bulgarian Association of Minimally Invasive Gynecological Surgery (BAMIGS). The conference offers the amazing opportunity to meet the latest tendencies in the operative treatment of benign and malignant gynecological tumors, endometriosis and pelvic organ prolapse. Special attention will be paid to the future trends in the development of robotic surgery.

We are going to watch 3D surgery, interact and discuss a lot in the historic Aula of the first and most ancient Sofia University in Bulgaria. The discussions will continue outside during the social gatherings in our beautiful capital Sofia, where history and traditions meet the future and innovations.

The motto of the SERGS 2019 Meeting in Bulgaria is **Beyond Borders**. Let's go together beyond the borders of standard way of thinking, classical medicine and conventional surgery!

Yours sincerely,

  
**Prof. Dr. Grigor Gortchev, MD, PhD, DSc**  
President of 11th Annual SERGS Meeting

  
**Prof. Dr. Slavcho Tomov, MD, PhD, DSc**  
Scientific Committee Chair of 11th Annual SERGS Meeting  
Rector of Medical University – Pleven, Bulgaria



## SERGS 2019 SCIENTIFIC COMMITTEE

Grigor Gorchev, Bulgaria – SERGS 2019 meeting president  
Slavcho Tomov, Bulgaria - Scientific committee Chair  
Henrik Falconer, Sweden  
Martin Rudnicki, Denmark  
Vanna Zanagnolo, Italy  
Danuta Lichosik, Italy (programme for nurses)

## SERGS COUNCIL

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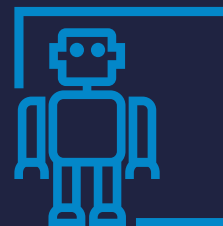
PN 1062286-EU RevA 08/2019

## INVITED FACULTY

John Boggess, USA  
Nicolas Bourdel, France  
Vito Cela, Italy  
Henric Falconer, Sweden  
Grigor Gorchev, Bulgaria  
Kirsten Hald, Norway  
Thomas Hebert, France  
Robert Holloway, USA  
Nina Hudry, France  
Thomas Ind, UK  
Pernille Tine Jensen, Denmark  
Rainer Kimmig, Germany  
Eric Lambaudie, France  
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Mona Oradi, USA  
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## NURSES' PROGRAMME FACULTY

Doreen Contreras, UK  
Kamelia Ilieva, Bulgaria  
Danuta Lichosik, Italy  
Mariane Manolova, Italy  
Pavlina Radoeva, Bulgaria



# SATELLITE SYMPOSIUM THE FUTURE OF STANDARDIZED ROBOTIC TRAINING AND ENHANCED VISUALIZATION



**Friday**  
**Sept. 27<sup>th</sup>, 2019**



**13:00 – 14:00**



**Main Meeting  
Room**  
**Sofia University**

**13:00 – 13:05**

### **Introduction by Chairman**

Introduce speakers and the objective  
of this satellite symposium  
*Stuart Hart, M.D. Tampa, United States*

**13:05 – 13:30**

### **Standardizing Robotic Training**

*Stuart Hart, MD. Tampa, United States*

**13:30 – 13:55**

### **Enhancing Visualization**

*Prof. Jordi Ponce, Barcelona, Spain*

**13:55 – 14:00**

### **Questions and Answers**

*All Faculty*

All faculty members will be actively participating  
throughout the 1 hour symposium



**26<sup>th</sup>** Thursday  
SEPTEMBER

## SCIENTIFIC PROGRAMME "BEYOND BORDERS"

8:00-18:00 Registration

### Hall 225

9:00-17:00	Training on simulators, certification (Mimic, 3D Systems, STAN Institute)	Proctor: N. Hudry (France)
	Coordinators:	T. Herbert (France), D. Dimitrov (Bulgaria), T. Ivanov (Bulgaria)

### Main Hall

12:00-12:15	Welcome and opening ceremony	
	Presidential welcome	R. Verheijen, SERGS President
	Welcome	G. Gorchev, Meeting President
	Welcome	Minister of Health, Minister of Education
12:15-12:45	Keynote lecture Chair: R. Verheijen (France)	
	Past, present and future of surgery	C. Nezhat (USA)
12:45-15:00	Oncology robotic surgery session I Chairs: H. Falconer (Sweden), V.Zanagnolo (Italy)	
One Year After LACC Results – What’s New?		
12:45-13:00	SERGS statement	T. Ind (UK)

13:00-13:30	LACC group statement after a year	P. Ramirez (USA)
Single-institutional and multi-center oncologic results:		
13:30-13:45	Comparative analysis of robot-assisted and abdominal radical hysterectomy for patients with cervical cancer: 10-year experience	G. Gorchev (Bulgaria)
13:45-14:00	Single-institutional results	J. Persson (Sweden)
14:00-14:15	Single-institutional results	A. Maggioni (Italy)
14:15-14:30	Single-institutional results	J. Boggess (USA)
14:30-15:00	Round table discussion – take to work messages	
15:00-16:00	Present and future of da Vinci robotic-assisted surgery (industry supported symposium)	
15:00-15:30	What da Vinci robotic-assisted surgery brings to my department	H. Falconer (Sweden)
15:30-16:00	Intuitive's Perspective: The Era of Intelligent Surgery	P. Bradshaw (UK)
16:00-16:30	Coffee break/Exhibition	
16:30-18:00	Benign robotic surgery session I Chairs: M. Rudnicki (Denmark), P. Van Trappen (Belgium)	
Does robotic surgery improve fertility?		
16:30-16:45	Myomectomy – impact of myomectomy on fertility	K. Hald (Norway)
16:45-17:00	Myomectomy – surgical removal and how to improve fertility	C. Lönnerfors (Sweden)
17:00-17:15	Endometriosis – impact on fertility	M. Seyer-Hansen (Denmark)
17:15-17:30	Endometriosis – surgical aspects in relation to endometriosis and how to Improve fertility	C. Nezhat (USA)
17:30-17:45	Single-port robotic surgery	V. Cela (Italy)
17:45-18:00	Discussion	

**27<sup>th</sup>** Friday  
SEPTEMBER

8:00 - 18:00 Registration

## Hall 225

9:00-17:00	Training on simulators, certification	Proctor: N. Hudry (France)
		Coordinators: T. Herbert (France), D. Dimitrov (Bulgaria), T. Ivanov (Bulgaria)

## Main Hall

8:00-9:30	Selected oral communication/Video session Chairs: E. Lambaudie (France), T. Hebert (France)	
8:00-8:10	Surgical treatment of early stage cervical cancer in the netherlands	R.G.V. Smolders, (Netherlands)
8:10-8:20	Five-years' robot-assisted gynaecological surgery experience in a regional referral center	A.A. Popov (Russia)
8:20-8:30	Sentinel lymph node mapping in endometrial cancer: the real additional value of ultra-staging	M. Kaur (UK)
8:30-8:40	Cervical re-injection to improve sentinel lymph node detection in endometrial cancer	M.T. Achilarré (Italy)
8:40-8:50	Complete para aortic and pelvic lymph node dissection by retroperitoneal route with robotic assistance technique and assessment	T. Hebert (France)

18:00-19:00 "Surgical surprises" session (new interactive session supported by the society of laparoendoscopic surgeons - SLS)  
Chairs:  
V. Zanagnolo (Italy),  
H. Falconer (Sweden),  
P. Shaddock (USA),  
J. Yabanez-Morano (USA),  
J. Morrison (USA)

The session includes short videos of unexpected events during surgery. A multi-disciplinary panel of surgeons interacts with the audience discussing the "surgical surprises".

19:00-20:00 SERGS general assembly

20:00-21:00 Welcome cocktail – wine degustation

## Hall 137

14:30-16:00	Turkish robotic gynecologic surgery society session Chairs: İ. Dünder (Turkey), M. Güngör (Turkey)	
14:30-14:45	Robotic surgery for deep infiltrative endometriosis	A. Göçmen (Turkey)
14:45-15:00	Robotic surgery for early stage endometrial cancer	M. Güngör (Turkey)
15:00-15:15	Robotic radical trachelectomy	M. Murat Naki (Turkey)
15:15-15:30	Robotic radical parametrectomy	F. Güçer (Turkey)
15:30-15:45	Robotic extraperitoneal lymphadenectomy	M. Faruk Köse (Turkey)
15:45-16:00	Discussion	

8:50-9:00	Robot-assisted cervical cerclage in patient with DIE after vaginal trachelectomy and laparoscopic lymphnode dissection (video section)	A.A. Koval (Russia)
9:00-9:10	Robotic assisted laparoscopic hysterectomy on a woman with a bicornuate uterus	V. K. Lysdal (Denmark)
9:10-9:20	New haemostatic suturing technique in cases of robotic myomectomies when we lack vasopressin/pitressin injection	V. Hatzirafail (Greece)
9:20-9:30	Discussion	
9:30-10:00	<b>High tech in minimally invasive surgery - session I</b> Chairs: M. Rudnicki (Denmark), R. Kimmig (Germany), S. Tomov (Bulgaria)	
Real-time high-intensity focused ultrasound surgery will be performed using a JC model device for non-invasive procedure on a patient with uterine fibroid at HIFU Center, Saint Marina University Hospital – Pleven		
10:00-10:30	<b>Coffee break/Exhibition</b>	
10:30-12:00	<b>High tech in robotic surgery - session II</b> Chairs: M. Rudnicki (Denmark), R. Kimmig (Germany), S. Tomov (Bulgaria)	
3D robotic surgery and beyond		
An optical path, especially prepared for the 11 <sup>th</sup> Annual SERGS Sofia Meeting, will be used for 3D teleconference between the Medical University in Pleven and the Meeting Venue in Sofia. Three D pelvic anatomy of patient with cervical cancer will be demonstrated to the audience in 3D stereoscopic projection on a special screen.		
12:00-13:00	<b>Lunch</b>	
13:00-14:00	<b>The future of standardized robotic training and enhanced visualization (industry supported symposium)</b>	
13:00-13:05	Introduction by Chairman	S. Hart (USA)
13:05–13:30	Standardizing robotic training	S. Hart (USA)
13:30–13:55	Enhancing visualization	J. Ponce (Spain)
13:55–14:00	Questions and answers	All faculty

14:00-16:15 <b>Oncology robotic surgery session II</b> Chairs: R. Kimmig (Germany), V. Zanagnolo (Italy)		
State of the art		
Clinical and oncologic outcomes, current trends in:		
14:00-14:20	Nationwide introduction of minimally invasive robotic surgery for early Stage endometrial cancer	P. Tine Jensen (Denmark)
14:20-14:35	Perioperative and survival outcomes of patients with endometrial cancer Operated by three surgical approaches – robotic, laparoscopic and open. Ten-year experience	S. Tomov (Bulgaria)
14:35-14:55	Robot-assisted surgery for cervical cancer: place of parametrectomy after simple hysterectomy and surgery of recurrences (published and unpublished data)	E. Lambaudie (France)
14:55-15:15	Robot-assisted sentinel lymph node dissection in gynaecologic malignant Tumors	H. Falconer (Sweden)
New insights in robotics		
15:15-15:35	Peritoneal mesometrial resection and TCL - a new surgical strategy in endometrial cancer	R. Kimmig (Germany)
15:35-15:55	Robotic multiport surgery versus single site in obese patients with endometrial cancer	E. Vizza (Italy)
15:55-16:15	Analysis of sentinel lymph node pathology, recurrence, and survival in Endometrial cancer: new insights	R. Holloway (USA)
16:15-16:45 <b>Coffee break/ Exhibition</b>		
16:45-17:25 <b>Benign robotic surgery session II</b> Chairs: M. Rudnicki (Denmark), T. Hebert (France)		
16:45-17:00	Laparoscopy vs robotic surgery for endometriosis	T. Hebert (France)

17:00-17:20	Panel discussion: new insight in the beneficial effect of robotic surgery in endometriosis	
Five min presentation from each panel member	M. Rudnicki (Denmark), C. Nezhat (USA), T. Hebert (France), P. Van Trappen (Belgium)	
17:20-17:25	Take to work messages	
17:25-17:55	<b>Selected oral communication/Video session</b> Chairs: E. Lambaudie (France), G. Gorchev (Bulgaria)	
17:25-17:35	Robohyst TT – train the trainer course for robotic hysterectomy trainers – a multicenter experience	M. Kaur (UK)
17:35-17:45	Reproductive outcomes in infiltrative endometriosis	A.A. Popov (Russia)
17:45-17:55	Robotic assisted laparoscopic myomectomy – 5 modifications at apollo hospital hyderabad	R. Sinha (India)
20:00-23:00	Networking event	

**28<sup>th</sup>** Saturday  
**SEPTEMBER**

### Main Hall

7:30-8:15	<b>Poster session (E-posters)</b> Chairs: T. Ind (UK), L. Mereu (Italy)	
7:30-7:36	Three-year experiences of 636 robotic single-site surgery cases in a single institute: the first report of large-scale study	H.S. Moon (Korea)
7:36-7:42	Single-site versus multiport robotic hysterectomy and sentinel node mapping in low risk endometrial cancer: A prospective multicenter study	L. Mereu (Italy)
7:42-7:48	Outcome assessment of robot-assisted gynaecologic surgeries in the moscow city clinical hospital	M.A. Anisimova (Russia)
7:48-7:54	Outpatient program for robotic-assisted hysterectomy: first 3 years of experience	J. Belghiti (France)
7:54-8:00	RoG-STePS robotic gynaecology – surgical training e-Portfolio system	M. Kaur (UK)
8:00-8:06	The influence of technology on the advocacy and on the direct assistance to the patient subjected to the robot-assisted surgery in gynaecology	I. Chinali (Italy)
8:06-8:12	Surgical roboethics	S. Aleksandrova-Yankulovska (Bulgaria)
8:12-8:15	Discussion	
8:15-9:30	<b>"Beyond borders with innovation"</b> <b>Digital medicine, robotics and innovations</b> Chairs: N. Bourdel (France), T. Ind (UK)	
8:15-8:45	Keynote lecture: Future of robotics and beyond	R. Satava (USA)



8:45-9:00	Big data and surgery: the next digital evolution?	N. Bourdel (France)
9:00-9:15	Future OR	M. Baron (Germany)
9:15-9:30	Discussion	
<b>9:30-10:00</b>	<b>Coffee break/ exhibition</b>	
<b>10:00-10:30</b>	<b>Initial experience with the Versius Surgical System (industry supported symposium)</b> I. Pandeva (UK)	
<b>10:30-11:00</b>	<b>Senhance robotic platform (industry supported symposium)</b>	
10:30-10:45	Senhance an interdisciplinary approach for Gynecology, Urology, Colorectal and General surgery	T. Brandt (Switzerland)
10:45-11:00	Update on Senhance Robotic Platform: results from a single-center experience on 3mm robotic instrumentation	S. Cianci (Italy)
<b>11:00-12:15</b>	<b>Benign robotic surgery session III</b> Chairs: L. Mereu (Italy), P. Van Trappen (Belgium)	
11:00-11:15	Robotic hysterectomy in large and extra large uterus	M. Orady (USA)
11:15-11:30	Placement of mesh for vaginal vault prolapse – indications, complications and evidence for correct surgical placement	A. Popov (Russia)
11:30-11:45	Bowel complications in MIS	J. Morrisson (USA)
11:45-12:00	Fundamental of robotic surgery training	R. Satava (USA)
12:00-12:15	Discussion	
<b>12:15-12:45</b>	<b>Closing ceremony</b>	
Awarding the best abstract/movie/poster		
SERGS 2020 announcement		
Closing lecture/words – SERGS president		

**27<sup>th</sup>** Friday  
SEPTEMBER

## NURSES' PROGRAMME

### Hall 137

8:00 - 10:00	Registration	
10:00-10:30	Coffee break/ Exhibition	
10:30-12:00	Nurses' Session I: Past and present of robot-assisted surgery Chairs: D. Lichosik (Italy), K. Ilieva (Bulgaria)	
10:30-10:45	Welcome & Introduction	
10:45-11:05	State of art in gynaecology robot-assisted surgery	D. Contreras (UK)
11:05-11:25	Operating theatre nurse's role in multidisciplinary team of gynaecologic robot-assisted surgery	D. Lichosik (Italy)
11:25-11:45	Robot-assisted hysterectomy and sentinel lymph node dissection (fluorescence imaging - indocyanine green guided)	M. Manolova (Italy)
11:45-12:00	Discussion	
12:00-13:00	Lunch	

### Main Hall

13:00-14:00	The Future of Standardized Robotic Training and Enhanced Visualization (industry supported symposium)	
13:00-13:05	Introduction by Chairman	S. Hart (USA)
13:05-13:30	Standardizing Robotic Training	V. Zanagnolo (Italy)
13:30-13:55	Enhancing Visualization	J. Ponce (Spain)
13:55-14:00	Questions and Answers	All Faculty

## Hall 137

14:00-16:15	Nurses' Session II: Nurse's leadership in robot-assisted surgery Chairs: M. Manolova (Italy), D. Contreras (UK)	
14:00-14:30	Nurse's leadership and management in gynaecology robot-assisted surgery	K. Ilieva (Bulgaria)
14:30-15:00	Perioperative nursing for gynaecologic patients undergoing robotic surgery procedure	P. Radoeva (Bulgaria)
15:00-15:30	Training and learning curve for nurses facing gynaecology robot-assisted surgery	STAN institute
15:30-16:00	Key strategies for developing a successful robotics program	D. Lichosik (Italy)
16:00-16:15	Discussion	
16:15-16:45	<b>Coffee break/ Exhibition</b>	
20:00-23:00	Networking event	

**28<sup>th</sup>** Saturday  
SEPTEMBER

## Hall 137

8:00-9:30	Nurses' Session III: Challenges for the operating theatre nurses Chairs: P. Radoeva (Bulgaria), K. Ilieva (Bulgaria)	
8:00-8:30	Challenges for the operating theatre nurses	D. Lichosik (Italy)
8:30-9:00	Future of robot-assisted surgery	M. Manolova (Italy), D. Lichosik (Italy)
9:00-9:30	Discussion	
9:30-10:00	<b>Coffee break/ Exhibition</b>	
10:00-12:15	Nurses' Session IV	Chairs: D. Lichosik (Italy), K. Ilieva (Bulgaria), P. Radoeva (Bulgaria)
10:00-11:00	Poster & Video review	D. Contreras (UK)
11:00-12:00	Workshop: Hands on training on simulators	
12:00-12:15	Take to work messages	
	<b>Closing remarks</b>	

## Main Hall

12:15-12:45	<b>Closing Ceremony</b>	
	Awarding the best abstract/movie/poster	
	SERGS 2020 Announcement	
	Closing lecture/words – SERGS President	



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**TransEnterix Symposium**  
**Saturday the 28th of September 2019**  
**10.30 am - 11.00 am**  
**Main Room**

“Senhance an interdisciplinary approach for Gynecology,  
Urology, Colorectal and General surgery”

*Dr. Thorsten Brandt, Senior Clinical Marketing Manager EMEA, TransEnterix Europe*

“Update on Senhance Robotic Platform: results from a  
single-center experience on 3mm robotic instrumentation”

*Dr. Stefano Cianci, Policlinico Universitario Agostino Gemelli, Rome (Italy)*



**In the US:** The Senhance® Surgical System is intended to be used in laparoscopic gynecological surgery, colorectal surgery, cholecystectomy, and inguinal hernia repair in the U.S. The system is indicated for adult use.

**In the EU:** The Senhance® Surgical System is CE marked according to the MDD and is intended to be used in laparoscopic surgery in the abdomen, pelvis and limited uses in the thoracic cavity. Senhance was developed under a license of the European Commission Joint Research Centre.

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## CERTIFICATION WORKSHOP

During the SERGS meeting, you can attend a robotic basic skill certification on simulators with hands on coached sessions by expert robotic trainers.

You will train on two type of robotic simulators, on various types of exercises, improving your skills and preparing you to pass the Basic skill certification, first step of the SERGS curriculum for robotic gynaecologic surgeons.

Held for the 3rd year, this certification is dedicated to trainees, fellows or experienced surgeons beginning their robotic experience and willing to be certified as Robotic Surgeons.

First step is to complete the online intuitive test on systems.

Once this step is completed, you will train during 2 sessions of 1 hour each on multiple exercises, under the very helpful and effective watch of highly experienced robotic trainers (STAN institute team and Faculty members).

Then you will pass a 45-minute session of real time exercises, performed on both simulators systems.

From this session, your scores will be extracted and processed in order to evaluate your proficiency in basic skills robotic manipulation.

This certification is the first step in the SERGS curriculum, path to be certified as a robotic gynaecologic surgeon at the European level, single existing certification of your abilities performing robotic surgery.

The price for the Certification workshop is 350 EUR and it can be booked at the Registration desk.



## ABSTRACTS

### Oral communications

Friday, September 27, 8:00-9.30

ID: 16

### SURGICAL TREATMENT OF EARLY STAGE CERVICAL CANCER IN THE NETHERLANDS

**R.G.V.Smolders<sup>1</sup>, H.H.B. Wenzel<sup>2</sup>, M.A. van der Aa<sup>2</sup>, J.Beltman<sup>3</sup>, R. Bekkers<sup>4</sup>, S.Lambrechts<sup>5</sup>, H.Trum<sup>6</sup>, R. Yigit<sup>7</sup>, P. Zusterzeel<sup>8</sup>, R. Zweemer<sup>9</sup>.**

<sup>1</sup> Department of Gynaecological Oncology, ErasmusMC Cancer Institute Rotterdam, The Netherlands

<sup>2</sup> Department of Research, Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht, The Netherlands

<sup>3</sup> Department of Obstetrics and Gynaecology, Leiden University Medical Centre, Leiden The Netherlands

<sup>4</sup> Department of Obstetrics and Gynaecology, Catharina Hospital, Eindhoven, The Netherlands

<sup>5</sup> Department of Obstetrics and Gynaecology, Maastricht University Medical Centre +, Maastricht The Netherlands

<sup>6</sup> Department of Gynaecological Oncology, Netherlands Cancer Institute Antoni van Leeuwenhoek, Amsterdam, The Netherlands

<sup>7</sup> Department of Obstetrics and Gynaecology, University Medical Centre Groningen, The Netherlands

<sup>8</sup> Department of Obstetrics and Gynaecology, Radboud University Medical Centre, Nijmegen, The Netherlands

<sup>9</sup> Department of Gynaecological Oncology, UMC Utrecht Cancer Centre, Utrecht, The Netherlands

### Background

In previous decades, Minimal invasive surgery, i.e. radical hysterectomy, conventional or robot assisted (MIS) emerged as an alternative to abdominal radical hysterectomy (ARH) in cervical cancer.

Benefits include reductions in hospital stay and morbidity. In 2018, results from the prospective randomised study (LACC<sup>1</sup>) were published, reporting exceptional survival in the ARH group but less so in patients treated by MIS. We aimed to evaluate survival outcomes between ARH and MIS for early-stage cervical cancer, in the Netherlands.

### Methods

All cervical cancer patients, FIGO stages IA2, IB1 and IIA1 who underwent ARH or MIS between 2010 and 2017, were identified from the Netherlands Cancer Registry. Weighted multivariable Cox regression with Inverse Probability Treatment Weighting propensity score, was applied to determine the effect of ARH and MIS on overall (OS) and disease-free survival (DFS).

### Results

Of the 1107 patients, 738(67%) underwent ARH and 369(33%) MIS of which 271(73%) robot assisted. The ARH group had more pathological lymph nodes (18% vs.8%), tumours  $\geq 20$ mm (62% vs.36%), Depth of invasion  $> 10$  mm (31% vs. 14%), surgical margin involvement (4% vs.1%) and recurrences (13% vs.7%). They also showed worse all-cause mortality (9% vs.5%), unadjusted 5-year OS (85% vs.92%) and 5-year DFS (83% vs.91%). However, weighted Cox regression analyses showed similar 5-year OS (95% vs.95%) and 5-year DFS (89% vs.89%) in ARH and LRH. Subanalyses on clinical tumour size showed similar 5-year OS (98% vs.99%) and 5-year DFS (93% vs. 96%) for tumours  $< 20$  mm and similar 5-year OS (94% vs.92%) and 5-year DFS (84% vs.81%) for tumours  $\geq 20$ mm.

### Conclusion

We conclude that survival, albeit lower than in previous studies, is similar between ARH and MIS for early-stage cervical cancer, in the Netherlands, warranting further study to explanatory factors before dismissing MIS as inferior.

ID: 17

## FIVE-YEARS' ROBOT-ASSISTED GYNECOLOGICAL SURGERY EXPERIENCE IN A REGIONAL REFERRAL CENTER

**A.A. Popov, A.A. Fedorov, A.A. Koval, S.S. Tyurina, A.D. Idashkin**

Department of Endoscopic Surgery, Moscow Regional Scientific Research Institute of Obstetrics and Gynecology, Moscow, Russia

### Objective

to analyze the perioperative results and safety of performing gynecological surgeries using robot-assisted laparoscopy during implementation of the technique in the Moscow Regional Institute of Obstetrics and Gynecology over a 5-year period.

Robotic-assisted laparoscopic surgeries in gynecology included benign hysterectomies, myomectomies, radical hysterectomies with lymph node dissections, sacrocolpopexies, deep infiltrative endometriosis (DIE) treatment including 2 bowel resections.

### Methods

this was a retrospective observational study in which the medical records of 596 patients who underwent robotic surgery from January 2013 to December 2018 were analyzed. We evaluated age, body mass index (BMI), diagnosis, procedures performed, American Society of Anesthesiologists (ASA) classification, operative time, transfusion rate, perioperative complications, conversion rate, length of stay, referral to the intensive care unit (ICU), and mortality.

### Results

during the observed period, 4 experienced robotic surgeons performed 596 surgeries. The median patient age was 53

years, and the median BMI was 46,6 kg/m<sup>2</sup>. The most frequent procedure was hysterectomy (54%) in obesity patient. Sacrocolpopexy (25,8%) was performed for apical pelvic organ prolapse. Fifty-nine patients (9,9%) were operated due to DIE. The majority of the patients were classified as ASA II (45%) or ASA III (50%). The median operative time was 125 minutes, and the median length of stay was 2,4 days. We observed a 0.8% rate of perioperative complications, 0,3% conversion rate to laparotomy, 4 patients had to be referred to intensive care unit.

### Conclusions

Robot-assisted surgery could be safely performed in selected patients with high body mass index, apical prolapse and DIE. This technique is not intended to replace any other minimally invasive surgery but could increase awareness of a less challenging option for patients.

ID: 27

## SENTINEL LYMPH NODE MAPPING IN ENDOMETRIAL CANCER: THE REAL ADDITIONAL VALUE OF ULTRA-STAGING

**M. Kaur<sup>1</sup>, N. Mohammed<sup>1</sup>, M. Nobbenhuis<sup>1</sup>, K. Vroobel<sup>2</sup>, A. Attygalle<sup>2</sup>, T. Ind<sup>1,3</sup>**

<sup>1</sup> Department of Gynaecological Oncology, The Royal Marsden Hospital, London, UK

<sup>2</sup> Department of Pathology, The Royal Marsden Hospital, London, UK

<sup>3</sup> Department of Gynaecological Oncology, St Georges University Hospitals, London, UK

### Introduction

Sentinel lymph node (SLN) biopsy has become standard of care in many centres to assess the lymphatic metastasis in the early-stage endometrial carcinomas (EC), as it reduces the morbidity of full lymphadenectomy while still maintaining an appropriate detection rate. Detection rates have been shown to have an excellent sensitivity of 97.2% and 100% with a negative predictive value (NPV) of nearly 100%. The technique of Ultra-staging (US) has been reported to increase the detection rate of isolated tumour cells (ITC,  $\leq 0.2$ mm) and/or micro-metastases (MM, 0.2 – 2mm) by 8%. It's valuable role in primary breast carcinoma is well established, but consensus on how to interpret ITC and MM in (especially in low risk) endometrial cancer is not yet well defined.

### Methods

We reviewed the results of the SLN dissection rates using Indocyanine Green (ICG) and daVinci Robotic Firefly modality for a cohort of 197 patients operated with the intention to perform SLN biopsy at our institution for EC's between early 2015 and mid 2019. We commenced US

in December 2017.

### Results

67.5% patients had stage I, 8.6% had stage II, 22.8% were diagnosed with stage III and a small proportion of 1% was having stage IV disease. Endometrioid type was the most common carcinoma at 60.4%, followed by serous at 25.4%, carcinosarcoma at 9.1% and clear cell at 3.0% whereas 2.0% of other types. The majority of the EC's were of grade 3 (47.7%); grade 1 and grade 2 consisted of 35.0% and 17.3%, respectively. Lymphovascular space invasion (LVSI) was present in 38%. Our overall rate of positive SLN was 18.8% of which macroscopic SLN positive status was detected in 10.7%. US detected additional MM in 6.6% and ITC in 1.5%. A 10% increase was achieved after introduction of US: 14/102 (15%) before December 2017 vs 24/96 (25%) after US implementation; chi square,  $P=0.041$ . Overall identification of SLN (either right or left) in 96% and bilateral identification was achieved in 86%. 100% specificity was achieved in our cohort with a NPV of 98.16%. About 20% of SLN were identified in areas where conventionally there is no sampling performed.

### Conclusion

The high specificity and NPV of SLN biopsy with reports on similar survival rates in 'full lymphadenectomy' and 'SLN biopsy only' groups, calls for better optimisation of detection rates of lymphatic metastases in EC. US can increase this detection rate significantly and should be adopted in centres performing SLN biopsies



ID: 36

## CERVICAL RE-INJECTION TO IMPROVE SENTINEL LYMPH NODE DETECTION IN ENDOMETRIAL CANCER

**M.T. Achilarré<sup>1</sup>, F. Multinu<sup>1</sup>, A. Garbi<sup>1</sup>, I. Betella<sup>1</sup>, S. Bogliolo<sup>1</sup>, M. Maruccio<sup>1</sup>, A. Aloisi<sup>1</sup>, V. Minicucci<sup>1</sup>, C. Personeni<sup>1</sup>, M. Palumbo<sup>1</sup>, G. Aletti<sup>1,2</sup>, N. Colombo<sup>1,3</sup>, A. Maggioni<sup>1</sup>, V. Zanagnolo<sup>1</sup>.**

<sup>1</sup>European Institute of Oncology - Istituto di Ricovero e Cura a Carattere Scientifico IRCCS, Department of Gynecologic Oncology, Milan, Italy.

<sup>2</sup> Università degli Studi di Milano, Dipartimento di Oncologia ed Emato-Oncologia, Milan, Italy.

<sup>3</sup>University of Milan-Bicocca, Dipartimento di Scienze Chirurgiche - Facoltà di Medicina e Chirurgia, Milan, Italy.

### Objective

To evaluate the impact of cervical re-injection on the detection rate of fluorescence-guided sentinel lymph node (SLN) mapping in endometrial cancer (EC) patients undergoing robotic-assisted surgical staging.

### Methods

From April, 1 2017 to December, 31 2018 patients undergoing robotic-assisted surgery for apparently early-stage EC at our Institution were prospectively treated with SLN mapping using indocyanine green (ICG) accordingly to the Memorial Sloan Kettering Cancer Center (MSKCC) surgical algorithm. As per MSKCC algorithm, four mL (1.25 mg/mL) of ICG were injected into the cervical submucosa and stroma, at the 3 and 9 o'clock positions (1 mL each). In case of either no detection or unilateral detection, cervical re-injection was performed followings the same steps as previously described. Overall (successful mapping of at least one hemi-

pelvis) and bilateral detection were evaluated pre- and post-re-injection.

### Results

Of the 107 patients undergoing robotic-assisted surgical staging for EC during the study period, 7 cases with no detection or unilateral detection who did not underwent re-injection were excluded. Among the remaining 100 patients, after a single injection the overall detection rate was 98% (95% CI, 92.2-99.6%) with a 69% (95% CI, 58.8-77.7%) of bilateral detection rate. After re-injection, overall and bilateral detection rate were 100% (95% CI, 95.3-100%) and 91% (95% CI, 83.2-95.5%), respectively.

### Conclusions

In the case of no detection or unilateral detection, cervical re-injection of ICG can increase overall and bilateral detection rate, thus decreasing the number of patients requiring a complete bilateral or side-specific lymphadenectomy.

ID: 22

## COMPLETE PARA AORTIC AND PELVIC LYMPH NODE DISSECTION BY RETROPERITONEAL ROUTE WITH ROBOTIC ASSISTANCE TECHNIQUE AND ASSESSMENT

**Cavaller L, Bretonniere AC, Ozene A, Hebert T**

Gynecologic Dpt, University Hospital, Tours, France

Pelvic and para aortic lymph node dissection is the current recommendation management in staging Type 1 high grade or Type 2 uterus cancer.

This staging by laparoscopic (robotic or classic) transperitoneal route can be challenging due to patient morphology and/or postoperative adhesions due to previous surgeries (16% of underestimating disease stage in endometrial cancer) In this Video presentation, authors details the technique for a complete para aortic and pelvic lymph node dissection by retroperitoneal approach using robotic assisted laparoscopy.

This technique, despite its specific learning curve, is a relevant alternative to transperitoneal approach in challenging cases and deserves a larger spread among gynecologic oncologic surgeons.

ID: 18

## ROBOT-ASSISTED CERVICAL CERCLAGE IN PATIENT WITH DIE AFTER VAGINAL TRACHELECTOMY AND LAPAROSCOPIC LYMPHNODE DISSECTION (VIDEO SECTION)

**Koval A.A., Popov A.A., Fedorov A.A., Tyurina S.S.**

Department of Endoscopic Surgery, Moscow Regional Scientific Research Institute of Obstetrics and Gynecology, Moscow, Russia

### Background

Preconceptional cervical cerclage is a very effective procedure for patients with repeated miscarriages and after cervix removing. Live birth rate after this surgery is 96-98%. Complication rate is 1.5%

### Methods

For present time 137 laparoscopic cerclage surgery was done in our clinic. In this study we include patients with multiple pregnancies loss and failed vaginal cerclage, after cervix amputation and radical trachelectomy. Among 62 pregnancies we had only one preterm delivery at the gestation age of 27 weeks.

### Results

At the age of 30, in 2017 after cervical conization our patient was diagnosed with Cr coli uteri Ia2 stage. After that she underwent vaginal trachelectomy with laparoscopic lymphnode dissection. The histological examination showed Cr coli uteri T1a2N0M0 stage. She desired pregnancy and was recommended to perform IVF.

The ultrasound examination showed 4 stage of deep infiltrative endometriosis (rAFS) with recto-vaginal nodule and right ovarian cyst. As a preconceptional treatment method in our department

our choice was to perform a robot-assisted cervical cerclage, retrocervical node dissection, adhesiolysis and removal of the cyst. We applied mersilene graft.

### Conclusions

Patient was discharged on a day 2 and now she is planning to have an embryo-transfer two-months after the surgery.

ID: 23

## ROBOTIC ASSISTED LAPAROSCOPIC HYSTERECTOMY ON A WOMAN WITH A BICORNUATE UTERUS.

**V. K. Lysdal, M. Rudnicki**

Department of Obstetrics & Gynecology, Odense University Hospital, Odense, Denmark

### Background

Uterine malformations are uncommon but have been reported in up to 2% of all women, in women with infertility up to 4%, and in women with recurrent abortion up to 15%. Urinary anomalies are frequently present mostly as renal agenesis, but ureter malformations have been reported as well. Three-dimensional (3D) ultrasound and MRI have been shown to accurately display abnormal female pelvic anatomy and can be used to classify the abnormalities into subgroups as described by the classification system developed by the American Society of Reproductive Medicine.

Only few case reports exist regarding surgical management and hysterectomy in such cases.

### Methods

We present a woman referred due to menorrhagia presenting a bicornuate uterus with myometrium extending to one cm from the external cervical ostium and a corresponding fundal cleft. The cervix was described as very narrow, one cm long and two normal size cavities. The woman is 3 para and had previously undergone endometrial resection two years prior to referral. Due to continuous heavy bleeding, she was referred for hysterectomy. The patient was operated using robotic DaVinci Si system. The study was performed in order to describe how to interpret the anatomy and how to perform

a hysterectomy in a stage IV bicornuate uterus.

### Results

The present video describes each step in robotic assisted laparoscopic hysterectomy in a woman with a bicornuate uterus, a central myometrium in each horn extending to the level of the internal cervical ostium, and then one cervix. Initially, the anatomy was described, adhesions to the bowel detected and dissected, both ureters were identified, and after identification of the ureters, the uterine artery was identified lateral. The steps from dissecting the uterine artery from the cervix and opening the vagina are demonstrated.

### Conclusion

Robotic assisted laparoscopic hysterectomy is useful in exploring abnormal uterine cases and for hysterectomy since the female pelvic anatomy can be explored carefully.

ID: 19

## NEW HAEMOSTATIC SUTURING TECHNIQUE IN CASES OF ROBOTIC MYOMECTOMIES WHEN WE LACK VASOPRESSIN/PITRESSIN INJECTION.

**V. Hatzirafail<sup>1</sup>, A. Tserkezoglou<sup>1</sup>, E. Karatrasoglou<sup>1</sup>, G. Thomou<sup>1</sup>, A. Mpakas<sup>1</sup>, A. Paulaki<sup>2</sup>**

Department of Gynecologic Surgery, Euroclinic Hospital, Athens, Greece<sup>1</sup>,  
Department of Anatomical Pathology, Iaso Hospital, Athens, Greece<sup>2</sup>

### Background/Aim

To propose a new suturing haemostatic technique in cases of enlarged myomas, prior to myomectomy. This suturing strategy allows us to operate enlarged myomas without the need of vasopressin/pitressin injection.

### Methods

Step-by-step explanation of the technique using videos and pictures (educational video)

### Results

Myomectomy is a common procedure performed for conservative treatment of leiomyomas and is frequently performed using a minimally invasive technique. Many surgeons favour the robotic-assisted laparoscopic myomectomy, instead of the conventional laparoscopy, due to the ability to perform rapid suture deployment which results in decreased operative time and blood loss. In addition, the direct injection of a dilute vasopressin/pitressin solution into a myoma can assist with haemostasis and visualisation. In case of patients with enlarged myomas that vasopressin solution is not available or contra-indicated, we have developed a suturing technique that allows us to moderate the bleeding loss during myo-

mectomy.

Prior to incisioning the uterus, we apply crossed knots perimetricaly to the fibroid in order to diminish the blood supply of the fibroid. The number of knotting depends on the location of the myoma and the estimated size. Vicryl 1 or 0 is suggested.

After the completion of the peripheral knotting, the extraction of the myoma may be performed with better visualisation due to minor blood loss.

### Conclusions

Robot-assisted myomectomy cases are mostly duable but may become difficult due to bleeding problems. We are proposing a new, adequate and cost-effective suturing technique, prior to myomectomy, that diminishes the blood supply of the fibroid. This technique could be proved equally effective as the use of injection of pitressin/vasopressin and with substantial time benefit when compared with the surgical time required to clip the uterine artery temporarily.

## Oral communications

Friday, September 27, 17.25-17.55

ID: 31

## ROBOHYST TT – TRAIN THE TRAINER COURSE FOR ROBOTIC HYSTERECTOMY TRAINERS – A MULTICENTER EXPERIENCE

**M. Kaur<sup>1</sup>, T. Cecil<sup>2</sup>, M. Coleman<sup>3</sup>, M. Whittaker<sup>4</sup>, R. Kimmig<sup>5</sup>, T. Ind<sup>1,6</sup>**

<sup>1</sup> Department of Gynaecological Oncology, The Royal Marsden Hospital, London, UK;

<sup>2</sup> Colorectal and Peritoneal Malignancy Unit, Basingstoke Hospital, Basingstoke, UK;

<sup>3</sup> Colorectal Unit, Derriford Hospital, Plymouth, UK;

<sup>4</sup> Department of Gynaecology, Gloucestershire Hospitals, Gloucester, UK;

<sup>5</sup> Department of Obstetrics & Gynaecology, University Hospital of Essen, Essen, Germany;

<sup>6</sup> Department of Gynaecological Oncology, St Georges University Hospitals, London, UK

### Introduction

A wider uptake in utilisation of Robotic-Assisted (RA) approach and the expectation to have an introduction to different types of RA surgical devices, necessitates an imperative need to develop standardised and validated training programmes.

### Objective

Robohyst TT Course is designed for 'surgical trainers' (ST) to learn a standardized teaching technique in skill acquisition. We set forth the experiences from 6 'expert Gynaecologic Robotic Surgeons'. We aim to define key elements of this course, to determine its feasibility and to assess the impact of such training on the teaching experience of ST and their trainees.

### Methods

6 delegate ST were taught about the 3 paramount stages of a teaching session involving a RA procedure: Set, Dialogue

and Closure. These were backboneed by a consistent incorporation of several 'key components'. Scenarios requiring a 'taking over' of surgical control were portrayed in which a structured strategy of '6-STEPS' was applied with emphasis on the process to reach the point when a trainee safely proceeds further. On 2nd-day, 3 trainees were taught by ST in real life surgery. Training quality assessment was done by: (i) a feedback dialogue between the delegates teaching, delegates observing and the trainees; and (ii) a formative assessment using a course-Structured Training Trainer Assessment Report (cSTTAR). 2 expert ST were observers only. Spontaneous feedback by delegate ST, observer ST and the trainees was noted. Formal opinion surveys were distributed 8 weeks later to the delegates and their trainees, and the observers.

### Results

All 6 ST gave spontaneous feedback in the first 48 hours with exceptional enthusiasm about the course being experienced as useful and feeling strongly that it would positively influence their way of teaching. 100% of the delegates felt their objective was met and that they would recommend Robohyst TT to their colleagues. A great majority (>90%) of ST reported to be feeling more comfortable teaching difficult steps, that the teaching time was used more efficiently, and that the performance feedback was effective. More than 75% of the trainees trained by the participating ST after having attended the Robohyst TT course felt a significant improvement in their learning experience with incorporation of the key elements from the Robohyst TT course.

### Conclusion

Robohyst TT course is an effective coaching program to positively impact the educational experience of both the trainers and the trainees. It sets standards for a stepwise practical training and could be incorporated in RA surgical training curriculum.

ID: 10

## REPRODUCTIVE OUTCOMES IN INFILTRATIVE ENDOMETRIOSIS

**A.A. Popov, K.V. Krasnopolskaya, A.A. Fedorov, Zingan S., A.N. Kamalova, R.A. Barto**

Moscow Regional Research Institute of Obstetrics and Gynecology

### Resume

the effectiveness of the surgical treatment of infiltrative endometriosis in overcoming infertility in patients of reproductive age, as well as relief of pain after surgical treatment with laparoscopic and robot-assisted access is presented.

### Aim

to develop monitoring of fertile patients associated with different types of infiltrative endometriosis post operation. Materials and procedure: 146 surgeries were performed in infertile patients with diagnosis of infiltrative endometriosis from 2013 to 2018. Average age was 33,28 years old. Average BMI – 21,65. The most frequent location of infiltrate is retrocervical -113 patients (77,6%). Among them the wall of the large bowel was involved in 74 patients (50,3%). In 34 cases (23.7%) rectovaginal walls were involved in pathological process. In 10 cases (6.9%) the wall of the urinary bladder was damaged, in 8 patients (5.5%) the wall of ureter was also damaged

### Results

in 146 patients primary infertility is indicated in 68,49% (100 patients), secondary infertility - в 31,51% (46 patients). Patency of fallopian tubes indicated in 63,7% (93 patients). The frequency of spontaneous pregnancy made 45.16%, irrelevant to the surgical approach. IVF effectiveness made 45.9%. In 8.9% cases there were postoperative complications, the frequency of which was 7 times less in robotic group.

Pain relief in 75.85% patients did not depend on the kind of surgical procedure.

### Conclusion

laparoscopical and robotic approaches are effective in treatment of infertile patients with infiltrative endometriosis. Highly effective is also pain relief in patients with endometriosis- associated pelvic pain.

ID: 35

## ROBOTIC ASSISTED LAPAROSCOPIC MYOMECTOMY – 5 MODIFICATIONS AT APOLLO HOSPITAL HYDERABAD

**R. Sinha, R. Bana**

Department of Gynecology (Minimal Access & Robotic Surgery), Apollo Hospital, Hyderabad, India

### Aim

To discuss 5 modifications in our technique to increase feasibility and cost effectiveness.

### Method

The first modification was to do a preoperative MRI for each case. It helped in accurate myoma mapping, differentiated myomas from adenomyosis and helped plan precise incisions. Reducing the number of robotic instrument was the next step by using laparoscopic myoma screw form assistant port for enucleation instead of robotic tenaculum. The fenestrated bipolar continued to be used during suturing instead of prograsp or second needle holder. So instead of SIX instruments that we started with, we now use only THREE instruments. The third modification was to reduce the number of ports by Rail Road technique. We now start the surgery with one 12 mm port for the camera and one 8 mm on right side for scissors. On the left side we combine the 8mm over 11 mm as one port by a rail road technique reducing the need to put them separately. The fourth modification was to use a 30 or 45 cm barbed suture. This is contrary to what is taught during laparoscopy to use a length of 8-10 cms for effective non entangled suturing. A single suture was sufficient in most cases for hysterotomy closure. This reduces the time needed for multiple needle pass and cost. The last modification was to do away with the electro mechanical morcellator & predesigned bags. We do cold

knife morcellation in an indigenous plastic bag. The route of extraction of myoma was either umbilicus, vaginal or rarely suprapubic.

### Conclusion

In a period of over 6 years we have made Robot Assisted Myomectomy feasible and cost effective in Indian Scenario. This has enabled us to reduce open myomectomy.



## POSTER PRESENTATIONS

Saturday, September 28, 7.30-8.15

ID: 2

### THREE YEAR EXPERIENCES OF 636 ROBOTIC SINGLE-SITE SURGERY CASES IN A SINGLE INSTITUTE: THE FIRST REPORT OF LARGE SCALE STUDY

**HK. Yoo, JE. Shim, HJ. Shin, SR.Lee, KA. Jeong, HS. Moon.**

Department of Obstetrics and Gynecology, Robot Surgery Center, College of Medicine, Ewha Womans University

#### Background

The purpose of this study was to report 636 cases of successful robotic single-site surgeries at the first large scale study and to evaluate the feasibility and safety of robotic single-site surgery in the gynecology field.

#### Methods

A total of 636 cases of robotic single-site surgery performed by 3 gynecologic surgeons at Ewha Womans University Medical Center from November 2014 to January 2018, were collected retrospectively. All the patient's uterine and ovarian cyst size were less than the pregnancy 4 months size with location under the umbilicus that robotic single site platform can modulate. We reviewed the patients' charts and analyzed clinical characteristics and surgical variables including mean docking time, operation time and estimated blood loss with one-way analysis of variance (ANOVA), Kruskal-Wallis analysis, chi-square test, Scheffe analysis and linear regression analysis using SPSS version 24.0.

#### Results

Among the total cases, myomectomy was 223 cases, hysterectomy was 185 cases,

adnexectomy was 196 cases, sacrocolpopexy was 24 cases and other robotic single-site surgeries were 8 cases. The mean age of patients was  $38.98 \pm 10.07$  years. There were  $99 \pm 2.15$  minutes of mean docking time,  $117.78 \pm 51.18$  minutes of mean operation time,  $164.18 \pm 196.39$  ml of mean estimated blood loss, and  $4.76 \pm 1.07$  days of mean hospitalization. We analyzed surgical variables of 3 groups by one year during 3 years. The mean anesthesia time, operation time, and postoperative sips of time were decreased significantly according to the each period. The docking time was decreased significantly after 1 year. There was a few intraoperative or perioperative complication in 16 cases (2.5%).

#### Conclusions

Robotic single-site surgery is a feasible and safe procedure in various kinds of gynecologic diseases. Having more experiences in performing robotic single-site surgery is needed to get better surgical outcomes.

ID: 4

### SINGLE-SITE VERSUS MULTI-PORT ROBOTIC HYSTERECTOMY AND SENTINEL NODE MAPPING IN LOW RISK ENDOMETRIAL CANCER: A PROSPECTIVE MULTICENTER STUDY.

**L. Mereu<sup>1</sup>, V. Berlanda<sup>1</sup>, B. Gardella<sup>2</sup>, D. Surico<sup>3</sup>, A. Vigone<sup>3</sup>, R. Pertile<sup>1</sup>, A. Spinillo<sup>2</sup>, S. Tateo<sup>1</sup>**

<sup>1</sup> Department of Obstetrics and Gynecology, Santa Chiara Hospital of Trento ITALY

<sup>2</sup> Department of Obstetrics and Gynecology, IRCCS Policlinico San Matteo, University of Pavia ITALY

<sup>3</sup> Department of Obstetrics and Gynecology, University of Novara ITALY

#### Background

RSS surgery is an option for EC treatment.

#### Method

prospective multicenter cohort study, setting in Santa Chiara Hospital of Trento and University Hospital of Pavia and Novara. Between January 2017 and January 2019, 76 consecutive patients with diagnosis of endometrial atypical hyperplasia or low risk (Grading 1-2, myometrial invasion < 50%) EC undergoing robotic TH and SLN mapping were included. Data on patient's characteristics, surgical outcomes, QoL and cosmesis were prospectively collected and analyzed based on the surgical approach (RSS vs RM). Clinical follow up was performed at 4 weeks, 6 and 12 months after surgery.

#### Results

51 patients underwent RM and 25 RSS surgery. Main differences between the two groups were: mean BMI in RM group: 29 Kg/m<sup>2</sup>, RSS: 24.8 kg/m<sup>2</sup> (p-value <0.001), drop haemoglobin in RM: 0.98 mg/mL, RSS: 1.47 mg/mL (p-value 0.013). No differences were found in term of SLN detection: 96.1% in RM (66.7% bilateral, 29.4% monolateral) and 96% in RSS (76%

bilateral, 20% monolateral). In one RSS case the removal of right common iliac SLN was not feasible. We found a better physical functioning in RSS (97.1 vs 91.6, p-value 0.006) at 6 and 12 months after surgery and less pain in RM (98.6 vs 94.4, P-value 0.029) at 6 months. No differences in complications and cosmesis were detected.

#### Conclusion

In the treatment of low risk EC with SLN mapping, we did not find any substantial advantages between the two approaches but we evidenced technical limitation in the removal SLN in RSS group.



ID: 34

## OUTCOME ASSESSMENT OF ROBOT-ASSISTED GYNECOLOGIC SURGERIES IN THE MOSCOW CITY CLINICAL HOSPITAL

**A. N. Kuleshov<sup>1</sup>, A. A. Solomatina<sup>2</sup>, L. S. Bulatova<sup>1</sup>, E. S. Surkova<sup>1</sup>, M. A. Anisimova<sup>2</sup>**

<sup>1</sup> Clinical Hospital №31, Moscow;

<sup>2</sup> Pirogov Russian National Research Medical University (RNRMU), Moscow

### Background

Prolapse of the pelvic organs, uterine fibroids are some of the most common conditions found in gynecological practice. Women with these disorders suffer from the deterioration of their quality of life, social status and reproductive potential. Robot-assisted surgery is a recognised treatment for pelvic-organ prolapse and uterine fibroids. For female genital prolapse, promontopexy is the gold standard. Clinical medicine requires optimal treatment of uterine fibroids in women of reproductive age.

### Aim

to assess the outcome of the robot-assisted gynecologic surgical procedures performed at the Department of Robotic Surgery at the Clinical Hospital №31 of the Moscow.

### Methods

The study used 2017-2018 City Clinical Hospital №31 data. We have conducted a retrospective study for 35 patients who underwent robot-assisted laparoscopic myomectomy (23 women) and promontopexy (12 women) by a single operator.

### Results

There were 35 cases of robot-assisted laparoscopic myomectomy for deep intramural myomas. The patients had  $3.9 \pm 3.5$  myomas on average, and the mean size of the largest myoma of each patient was

$7.6 \pm 2.1$  centimeters in diameter. Mean operative time was  $278.3 \pm 99.1$  minutes. After the surgery, five (21.7 %) of the 23 women pursuing a pregnancy became pregnant. Twelve patients underwent robot-assisted promontopexy (median follow-up, 12.5 months). The simplified Pelvic Organ Prolapse Quantification improved significantly ( $p < 0.0005$ ) for all 4 of the anatomic landmarks. Both median fecal and urinary incontinence scores ( $p < 0.0005$ ) improved significantly at 12 months. A positive effect on sexual function ( $p = 0.002$ ) and quality of life for each compartment ( $p < 0.0005$ ) was observed. No multicompartment recurrences were detected.

**Conclusions** Robot-assisted laparoscopic myomectomy should be considered as an effective method of organ saving reconstructive plastic surgery of uterine fibroids in patients with reproductive age, planning for the future implementation of the generative function. Robot-assisted promontopexy is an effective method for the treatment of prolapse in terms of functional outcomes, quality of life and sexual function.

ID: 25

## OUTPATIENT PROGRAM FOR ROBOTIC-ASSISTED HYSTERECTOMY: FIRST 3 YEARS OF EXPERIENCE

**J. Belghiti<sup>1</sup>, R. Goldstein<sup>1</sup>, GN Moawad<sup>2</sup>, M. Nikpayam<sup>1</sup>, H. Azais<sup>1</sup>, C. Uzan<sup>1,3</sup>, G. Canlorbe<sup>1,3</sup>**

<sup>1</sup> Assistance Publique Hopitaux de Paris (AP-HP), Department of Gynecologic and Breast Surgery and Oncology, Pitie Salpetriere University Hospital, Paris, France

<sup>2</sup> George Washington University School of Medicine and Health Sciences, Department of Obstetrics and Gynecology, George Washington University Medical Center, Washington, DC

<sup>3</sup> Sorbonne University, INSERM UMR\_S\_938. "CancerBiology and Therapeutics". Centre de Recherche Saint-Antoine (CRSA), Paris, France

### Background/Aim

Outpatient surgery (defined as less than 12 hours of hospital stay) is a French public health priority with the objective of reaching 70% of surgical activity in 2022. In 2016, only 2.3% hysterectomies were performed in an outpatient setting in France. Robotic surgery allows to extend minimally invasive surgeries indications to more complex cases, and would be in line to achieve this goal. The aim of this study is to evaluate clinical outcomes and cost of outpatient versus inpatient for patients undergoing robotic-assisted hysterectomy.

### Material and Methods

Retrospective cohort study of patients who underwent robotic hysterectomy at the Pitie Salpetriere University Hospital, APHP, Paris, France, between January 2016 and December 2018. Procedures included were total hysterectomy for cancer and benign indications.

### Results

A hundred and nineteen patients were included. 33% (n=39) of the cases were outpatient. Three (8%) were admitted after surgery: one for anxiety and two for intraoperative complication (epigastric vessels and bowel injury). There was no difference between age, BMI and ASA score for outpatient vs inpatients (respectively 48 (38-68) vs 49 (29-92) ( $p=0.3$ ), 29 (20-43) vs 29 (18-57) ( $p=0.2$ ), 1 (1-2) vs 2 (1-3) ( $p<0.04$ )). Only one patient (7%) with BMI > 40 was in outpatient program. Median (range) operative time and uterine weight for outpatient vs inpatients were respectively 140 (80-240) vs 150 (70-320) min ( $p=0.08$ ) and 219 (54-1643) vs 159 (26-2500) grams ( $p=0.09$ ). No difference was detected between inpatient and outpatient pelvic node dissection: Six (15%) outpatient vs 14 (18%) in the inpatient group ( $p=0.5$ ).

There was no early post-operative complication for outpatient women. Four (11%) outpatient women had late complication requiring readmission: One for ureteral fistula, 3 for secondary vaginal wound bleeding. Two of them required re-intervention and none needed blood transfusion. Two inpatient women (3%) had late complication requiring readmission for medical treatment of a post-operative infection ( $p=0.89$ ).

Outpatient rate progressed from 23% in 2016 to 36% in 2018 without an increase in conversion or complications.

Costs were significantly lowered in the outpatient setting: 4050 (2478-7664) vs 5780 (890-10434) euros ( $p<0.04$ ).

### Conclusion

In this study, ambulatory surgery was not a limitation for robotic-assisted total hysterectomy with low conversion rate and postoperative complications. Outpatient strategy allowed to a 30% reduction of the costs compared to inpatient.

ID: 30

## ROG-STEPS ROBOTIC GYNAECOLOGY – SURGICAL TRAINING E-PORTFOLIO SYSTEM

**M. Kaur<sup>1</sup>, M. Nobbenhuis<sup>1</sup>, P. Stanciu<sup>1</sup>, N. Rai<sup>1</sup>, T. Ind<sup>1,2</sup>**

<sup>1</sup>Department of Gynaecological Oncology, The Royal Marsden Hospital, London, UK

<sup>2</sup> Department of Gynaecological Oncology, St Georges University Hospitals, London, UK

The lack in structured training of gynaecological residents in Robotic Assisted Surgery (RAS) has been acknowledged by many. We present hereby a Pilot concept of a Training Platform – RoG-STePS - which is designed to become a standardised online log book in an e-portfolio for RAS, where different aspects of a single task are evaluated and scored.

Both the trainee and the trainer set up their unique record, which leads to a consistency in reporting the smallest elements associated with the tasks they perform or evaluate. This then translates into a progressively improved learning curve. A registration by a moderator is required to utilise the platform and each person can be registered (both) as a trainee and/or a trainer. Different trainee tabs are developed to cover not only module-based procedural training but also observational- and simulation training. After completing the log for the activity executed, a request is sent to the supervisor through the RoG-STePS platform. Trainer will score the trainee using Global Assessment Scores for Technical Skills (GEARS), non-technical skills (NOTSS) and Objective Structured Assessment of Technical Skills (OSATS). Once an assessment has been completed, the trainee can eventually get a sign off with an original signature of the trainer and a certificate can be printed for a specific index procedure. All

other course/conference certificates can be uploaded as well.

Currently, two index procedures are chosen: hysterectomy and pelvic lymphadenectomy. Some parts of the procedure can be universal, such as docking and they are listed under “All Index Procedures”. Other parts are specific to one of the two index procedures and are meant to be entered separately. If the case has been observed only, this can be logged as well but obviously a not applicable (NA) should apply for the different parts of the index procedure. By clicking on the tabs of GEARS, NOTSS and OSATS, the trainee can see the scores.

It's feasibility and acceptance were evaluated by 3 fellows in Gynaecological Oncology performing Robotic Surgeries at a European Center of Excellence in RAS. Defined criteria in the assessment of their performance have not only positively impacted their learning curve but also increased their contentment at work. RoGSTePS platform sets a structured and practical standard for a standardised training in RAS which is indispensable at present as the role of RAS is continuing to expand even further with the emergence of new Robotic devices coming up.

ID: 33

## THE INFLUENCE OF TECHNOLOGY ON THE ADVOCACY AND ON THE DIRECT ASSISTANCE TO THE PATIENT SUBJECTED TO THE ROBOT-ASSISTED SURGERY IN GYNAECOLOGY.

**I. Chinali, C. Simone, G. Magon**

Operating Theatre, IEO European Institute of Oncology IRCCS, Milan, Italy

### Background/Aim

In the last thirty years, technology has become pervasive in the operating room. Much of the attention of physicians and nurses has addressed to the interpretation of data and information with the risk of losing sight of the person in its entirety, the history of his illness, the complex relationships condition of his life and his health. Management of high technology equipment often creates distance between patient and health practitioner during surgical event. The aim of this study is to analyze and define the theme of the body, the advocacy and the corporeity between nurses and patients in caring process in robotic surgery.

### Methods

Nurses involved in robotic surgery procedures conducted the investigation at the European Institute of Oncology in Operating Theatre. Some critical points of patients in perioperative care were analyzed in approximately ten thousand robotic procedures since 2006 until now.

### Results

A bibliographic search was conducted and from the results have emerged some important themes: the centrality of the embodiment in perioperative caring, the idea of advocacy and the risk of the technology to dehumanize patients.

### Conclusion

In an holistic theory of nursing, the body

is not only considered as a set of organs separated by emotions: the human being is a tight unit between body and soul. The definition of embodiment find its importance because it restore entirety to a corporeal entity that was fragmented till now.

The extreme technology of robotic surgery can cause fear and can poison the relationship between nurses and patients.

So, in this perspective, any contact with a patient's body before the robotic surgery must be transformed into an opportunity to recognize his subjectivity and to open communications channels with the patients. In gynaecological surgery the concept of the body is extremely pervasive, because of the embarrassment of the intimate touch, that women always refer, from complete strangers (nurses and surgeons). The right balance between an empathetic touch (nonprocedural) and a technical touch (procedural) gives new importance to nursing care. Body and embodiment are rooted in nursing practice and generate more holistic way of caring patients. The technical skills, necessary in the operating room, can cause a dehumanization of the patient, who become an ill part of the body or a surgical procedure.

It is necessary to regain the physical and symbolical space that the technology interpose between the nurse and the patient.

ID: 21

## SURGICAL ROBOETHICS

**S. Aleksandrova-Yankulovska**

Public health sciences, Medical University-Pleven, Pleven, Bulgaria

### Background

Parallel to the robots' entry into health care, discussions about their ethical aspects and the need for universal ethical standards are emerging. The ability to develop autonomous robots has been met simultaneously with the hope of improving health care in high-risk settings and concerns about negative effects. The AIM of this report is to clarify the scope of the surgical roboethics and to analyse its main aspects through the application of leading ethical theories.

### Material And Methods

Content analysis and ethical reflection through principalism, utilitarianism, deontology and patients' rights.

### Results

(Surgical) roboethics is concerned with what rules should be created for robots in surgery to ensure their ethical behavior and how to design ethical robots. Currently robotic systems are not fully autonomous but operated by the surgeon. Then who will be the standards for? For the robots or for the people (who produce and use them)? Suggested standards by now include: robots to be in the service of patients; robotization of human body must respect its unity and its limits and should not exacerbate social fissures; it must not lead to a suppression of human relations and must be respectful of cultural sensitivities; users should restrain from excessive delegation of powers. The human is ultimately accountable for robot's implementation and behavior. Questions raised by the ethical reflection: Every new technology is restricted. How

then to respect the right of every patient to the highest standard of physical and mental health and the right of equal access? Is utilitarian thinking justified when we plead for application of robotic surgery only for difficult localizations and malignant cases? Does the robot change physician-patient relationship and physician's perception of responsibility towards the patient? How to balance surgeon's need of training and patient's safety? How to guarantee the validity of informed consent? After all, whose care is more valuable: human or robotic?

### Conclusion

If we are still reflecting on the possible negative effects of robots in health care, then the wisest act would be to apply the classical precautionary principle. It would enable healthcare managers and practicing physicians to adopt precautionary measures while the scientific evidence about the health and moral hazards are uncertain. In the meantime the ethical debate must go on in order to bring the various positions closer enough to create universally accepted ethical standards.

Key words: precautionary principle, surgical roboethics, patients' rights, ethical reflection

## E-POSTERS

ID: 5

### ROBOTIC SINGLE-SITE MYOMECTOMY: A HYBRID TECHNIQUE REDUCING OPERATIVE TIME AND BLOOD LOSS

**S. Won, N. Lee, M. Kim, M.K. Kim, M.L. Kim, Y.W. Jung, B.S. Yun, S.J. Seong**

Department of Obstetrics and Gynecology, CHA Gangnam Medical Center, CHA University, Seoul, Korea

### Background/Aim

Robotic single-site myomectomy (RSSM) is limited in traction strength problem during myoma enucleation. The hybrid robotic single-site myomectomy (H-RSSM) which includes laparoscopic single-site myoma excision followed by robotic single-site suture could be a solution to overcome the traction strength problem. We aimed to introduce a hybrid techniques and compare its surgical outcomes with those of conventional RSSM using the da Vinci® Si surgical system®.

### Methods

Medical records of 89 women who underwent H-RSSM and 131 women who underwent RSSM were retrospectively reviewed. Clinical characteristics, perioperative and surgical outcomes were compared between the two groups.

### Results

There were no significant differences between the two groups with respect to age, body mass index, marital status, parity, previous abdominal surgery, number of total myomas, size, type and location of the largest myoma, and retrieved tumor weight. Women with peritoneal adhesions were significantly more in the H-RSSM group than in the RSSM group (27.0% vs. 9.2%,  $p < .001$ ). There were one case of laparoscopy conversion and four cases of multi-site conversion in the

RSSM group, whereas there were no conversion cases in the H-RSSM group. The H-RSSM group had a significantly reduced operation time ( $98.7 \pm 31.7$  vs.  $141.4 \pm 54.4$  min,  $p < .001$ ) and lower estimated blood loss ( $131.5 \pm 78.1$  vs.  $212.3 \pm 189.8$  mL,  $p < .001$ ). Following surgery, blood transfusion was given to two patients in the H-RSSM group and to four in the RSSM group ( $p = .719$ ). Two cases of ileus and one of fever in the H-RSSM group and one of ileus in the RSSM group were postoperatively diagnosed ( $p = .126$ ).

### Conclusion

H-RSSM was found to be associated with reduced operative time and lower estimated blood loss.

ID: 6

## COMPARISON OF SURGICAL OUTCOMES BETWEEN ROBOTIC & LAPAROSCOPIC SINGLE-SITE MYOMECTOMIES

**M.K. Kim, S. Won, N. Lee, M. Kim, M.L. Kim, Y.W. Jung, B.S. Yun, S.J. Seong**

Department of Obstetrics and Gynecology, CHA Gangnam Medical Center, CHA University, Seoul, Korea

### Background/Aim

To compare surgical outcomes of robotic single-site myomectomy (RSSM) and laparoscopic single-site myomectomy (LSSM).

### Methods

The medical records of 105 consecutive women who had undergone RSSM and 183 consecutive women on whom LSSM had been performed were retrospectively reviewed. The clinical characteristics and surgical outcomes between these groups were compared.

### Results

Age at the time of surgery was younger among RSSM women than for LSSM patients ( $36.7 \pm 6.3$  vs.  $38.7 \pm 6.7$  years,  $p=0.010$ ). In the RSSM group, whereas there were more unmarried (48.6 vs. 34.4%,  $p=0.018$ ) and nulliparous (73.3 vs. 59.6%,  $p=0.019$ ) women, there were fewer women who had undergone previous abdominal surgery (18.1 vs. 32.8%,  $p=0.007$ ) and peritoneal adhesion (7.6 vs. 23.0%,  $p=0.001$ ). Total operation time was longer in the RSSM group than in the LSSM group ( $145.8 \pm 53.7$  vs.  $117.5 \pm 44.8$  min,  $p<0.001$ ). Estimated blood loss ( $210.1 \pm 162.2$  vs.  $161.4 \pm 158.7$  mL,  $p=0.013$ ) was much higher in the RSSM group than in the LSSM group. Hemoglobin decrement ( $1.4 \pm 1.1$  vs.  $1.6 \pm 1.1$  g/dL,  $p=0.120$ ) and blood transfusion performance (1.0 vs. 1.1%,  $p=0.910$ ) were similar between the two groups. The duration of hospital stay

( $4.7 \pm 0.9$  vs.  $5.4 \pm 1.0$  days,  $p<0.001$ ) was shorter in the RSSM group. No one in the RSSM group had any operation-related complications. However, one ileus and one wound dehiscence were diagnosed in the LSSM group ( $p=0.309$ ).

### Conclusions

Although the hospital stay might be shorter, RSSM showed longer operation time and higher estimated blood loss.

ID: 7

## ENHANCED RECOVERY AFTER SURGERY (ERAS) PROTOCOL FOR EARLY DISCHARGE WITHIN 12 HOURS AFTER ROBOTIC RADICAL HYSTERECTOMY

**J. Paek, J. Shim, J. Lee, E. Jo, S. H. Yum, K. Hwang**

Department of Obstetrics and Gynecology, Ajou University School of Medicine, Suwon, Republic of Korea

### Background/Aim

To evaluate safety of early discharge (ED) within 12 hours after robotic radical hysterectomy (RRH) in a tertiary hospital which has the enhanced recovery after surgery (ERAS) protocol.

### Methods

Among 94 consecutive cervical cancer patients who had undergone RRH, perioperative outcomes, postoperative genitourinary function, and the rate of unexpected visit and re-admission were analyzed retrospectively. Patients were categorized as a surgery-to-discharge time of  $\leq 12$  hours (ED) or  $> 12$  hours (late discharge [LD]).

### Results

About 77% ( $n = 72$ ) of analyzed patients discharged within 12 hours after RRH. Of these, 46 patients (65%) underwent nerve-sparing (NS) RRH (vs. 18% of LD,  $p < 0.001$ ). The ED group had significant correlation with shorter duration for urinary catheter required (1 vs. 39 days,  $p < 0.001$ ), less operative blood loss (100 vs. 125 mL,  $p = 0.004$ ), and less voiding difficulty after long-term follow up (3 vs. 18%,  $p = 0.025$ ) compared to the LD group. There was no difference of perioperative complications, unexpected visit, and re-admission between the two groups. Performing NS-RRH was only independent predictor for ED ( $p = 0.043$ , hazard ratio for LD = 0.22, confidence interval = 0.05-0.95).

### Conclusions

The ED within 12 hours after RRH was safe in the setting of ERAS protocol. The NS-RRH could avoid the delay of genitourinary function recovery after surgery which caused LD. It can become the reasonable clinical pathway to discharge early patients who undergo NS-RRH with ERAS protocol.



ID: 8

## ROBOT ASSISTED ADENOMYOMECTOMY USING TRIPLE-FLAP METHOD FOR UTERINE ADENOMYOSIS FOLLOWED BY SUCCESSFUL PREGNANCY

**Hyewon Chung, So-Jin Shin, Seung-mee Lee, Tae-Kyu Jang, Sanghoon Kwon, and Chi-Heum Cho**

Department of Obstetrics & Gynecology, Keimyung University School of Medicine, Daegu, Korea, Republic of (South)

### Objective

To report a successful full term pregnancy outcome after robot assisted adenomyomectomy using the triple-flap method

### Setting

The treatment for severe adenomyosis has been usually hysterectomy, because there is no line of demarcation between diseased and normal tissue. Yet many such women wish to save their uterus and some even wish to bear children. Our institution performed robot assisted adenomyomectomy using the triple-flap method for these patients.

### Interventions

The Da Vinci surgical system Si (Intuitive Surgical, Inc., Sunnyvale, California) is used with a camera port, 3 robotic instrument ports, and 1 assistant port. To prevent bleeding during procedure, both uterine arteries were clamped temporarily with laparoscopic bulldog clamp. Removal of the affected tissues, leaving a 1 cm margin of tissue above the endometrium and a 1 cm margin of tissue below the serosal surface, results in an external uterine wall composed of serosa and 1 cm of myometrium and an inner uterine wall composed of the same thickness of myometrium and normal endometrial lining. Thereafter, the myometrial defect has to be closed with the triple-flap overlap method.

### Conclusion

There were total 73 patients who underwent robot assisted adenomyomectomy using triple flap method from January, 2014 to September, 2018. There were total 6 pregnancies reported following the surgery, and 3 of them delivered healthy baby at 37 weeks via cesarean section without any pregnancy related complication.

ID: 9

## FEASIBILITY OF THE USE OF AN ARTICULATING BIPOLAR VESSEL SEALER IN ROBOTIC-ASSISTED TRANSPERITONEAL PELVIC AND INFRARENAL PARAAORTIC LYMPHADENECTOMY

**Yoon S Lee, Yoon H Lee, Gu O Chong, Dae G Hong, Hyun J Lee**

Gynecologic cancer center, Kyungpook National University Chilgok Hospital, Daegu, South Korea

### Objectives

The objective of this study was to evaluate the feasibility and safety of a bipolar energy device, the Endowrist® One™ Vessel Sealer (VS), in robotic-assisted transperitoneal pelvic and infrarenal paraaortic lymphadenectomy.

### Methods

From Apr. 2013 to Apr. 2018, we analyzed retrospectively 69 patients undergoing robotic-assisted transperitoneal pelvic and infrarenal paraaortic lymphadenectomy using VS (n=35) or conventional bipolar (n=34) for gynecologic malignancies. The perioperative data including the operative time and retrieved lymph node number of pelvic and infrarenal paraaortic lymphadenectomy, estimated blood loss, serum C-reactive protein, albumin, total protein level and postoperative complications were compared.

### Results

The operative time for infrarenal paraaortic (42.24 vs. 23.69 min.,  $p < 0.01$ ) and pelvic (23.50 vs. 19.97 min.,  $p = 0.04$ ) lymphadenectomy were significantly shorter in the VS group. The retrieved number of pelvic and infrarenal paraaortic lymph node, estimated blood loss, differences of serum albumin and C-reactive protein levels between preoperative and second postoperative day were not different. The perioperative complications related with

lymphadenectomy were lower in vessel sealer group, especially only one chylous ascites was occurred in VS group, while five cases chylous were in conventional group. There was no vascular injury in VS group compare to scissor group (2 cases)

### Conclusions

Our study showed that use of the vessel sealer in robotic-assisted pelvic and transperitoneal infrarenal paraaortic lymphadenectomy could be a feasible and safe.



ID: 13

## ROBOT ASSISTED LAPAROSCOPIC UTERINE MYOMECTOMY FOR SUBMUCOSAL MYOMA

H. Kang<sup>1</sup>, Y. Chung<sup>1</sup>, H. Cho<sup>2</sup>

<sup>1</sup>Department of Obstetrics and Gynecology, Seoul St. Mary's Hospital, Seoul, Republic of Korea; <sup>2</sup>Department of Obstetrics and Gynecology, Eunpyeong St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea

### Background/Aim

To report a surgical method of resection of a submucosal myoma by robot-assisted laparoscopic myomectomy.

### Methods

A 35 year old woman with heavy menstrual bleeding and dysmenorrhea visited Seoul St. Mary's hospital. She had a history of three emergency room visits due to excessive bleeding and menstrual pain, and the lowest hemoglobin level at that time was 8.0 g/dl. A submucosal myoma was diagnosed by pelvic ultrasonography and its exact location was confirmed by MRI. A robot-assisted laparoscopic uterine myomectomy was performed. During the operation, we used carmin fluid filling into the endometrial cavity to identify the exact margin of the myoma, and we enucleated the myoma without any damage to the endometrium. After checking for any residual myoma using real-time ultrasonography, we sutured the myometrium, layer by layer with PDS.

### Results

The patient was discharged without any complications after the operation. She will follow up at the clinic in July to check post-operative hysterosonography.

### Conclusions

Conventionally, submucosal myomas are removed by hysteroscopic resection. However it is advisable to avoid resecting too much of the endometrium in women who wish preserve their fertility. Thus, robot assisted laparoscopic myomectomy can be an option for type 1 or 2 submucosal myoma patients who want to become pregnant in future.

ID: 20

## APPROACH TO BIGGER SIZE UTERII – ROBOT ASSISTED HYSTERECTOMY/MYOMECTOMY

Dr Anshumala Shukla Kulkarni MD<sup>1</sup>, Dr Shweta Shetye DGO DNB<sup>2</sup>

Consultant Gynecology, Laparoscopic and Robotic surgeon<sup>1</sup>, Associate Consultant, Kokilaben Dhirubhai Ambani Hospital and Research Centre, Mumbai, India<sup>2</sup>

**Abstract** - The role of minimally invasive surgery has advantages of decreased pain, smaller incisions, less scarring, faster recovery, early discharge, and return to normal activities.

Minimal Access approach for a larger size uterus is technically difficult due to magnified visual field which limits the panoramic view intra op, limited access to the surgical route especially port configuration and approach to uterine vessels.

Limit of size of uterus for laparoscopic approach has been between 300-500 gms. There are no definite guidelines on approach to larger uterus hysterectomy through minimal access route.

Challenges encountered are difficult uterine manipulation and extraction of specimen.

28 patients were operated in last one year at our hospital with bigger size uteri (10 -28 weeks) weighing between 600 gm- 2500gm for hysterectomy and myomectomy.

Hysterectomies were approached with modifications of Modified roller paper technique, reverse hysterectomy, unidirectional hysterectomy and posterior rotation of uterus, enucleation of fibroids for better visualisation of operative field, over the uterus approach to reach uterine vessels, ligation of uterine blood vessels to minimize blood loss and then vaginal morcellation piece by piece.

Aim of this paper is to describe the modifications required to perform large uterus hysterectomy with the robotic approach.

Results – these modifications made minimally invasive surgery successful without any intra and post operative complications.

ID: 26

## ROBOTIC SINGLE-SITE STAGING OPERATION FOR EARLY-STAGE ENDOMETRIAL CANCER: EXPERIENCE AT A SINGLE INSTITUTION

**Hyewon Chung, Seungmee Lee, Tae-Kyu Jang, So-jin Shin, Sang-Hoon Kwon, Chi-Heum Cho**

Department of Obstetrics and Gynecology, School of Medicine, Keimyung University, Daegu, Republic of Korea

### Background/Aim

The aims of this study was to evaluate the feasibility and safety of a robotic single-site staging (RSSS) operation for early-stage endometrial cancer.

### Methods

Patients with a preoperative diagnosis of endometrial cancer (International Federation of Gynecology and Obstetrics stages IA to IB) from endometrial curettage and preoperative imaging studies were selected at Dongsan Medical Center from March 2014 to December 2018. All surgical procedures, including hysterectomy, salpingo-oophorectomy, bilateral pelvic node dissection, and cytology aspiration, were performed by robotic single-site instruments (da Vinci Si® surgical system; Intuitive Surgical, Sunnyvale, CA, USA).

### Results

A total of 53 women with early-stage endometrial cancer underwent the RSSS operation. The median patient age and body mass index were 47.2 years (range, 35–70 years) and 25.4 kg/m<sup>2</sup> (range, 18.3–46.4 kg/m<sup>2</sup>). The median docking time, console time, and total operative time were 8 minutes (range, 4–15 minutes), 75 minutes (range, 55–115 minutes), and 155 minutes (range, 125–190 minutes), respectively. The median retrieval of both pelvic lymph nodes was 9 (range, 6–15). There were no conversions to laparoscopic

py or laparotomy.

### Conclusions

The RSSS operation is feasible and safe in patients with early-stage endometrial cancer. In this study, operative times were reasonable, and the surgical procedure was well-tolerated by the patients. Further evaluation of patients with early-stage endometrial cancer should be performed in large-scale comparative studies using the laparoendoscopic, single-site staging operation to confirm the safety and benefits of the RSSS operation for early-stage endometrial cancer.

ID: 28

## NATURAL PREGNANCY AND SUCCESSFUL DELIVERY AFTER ROBOT-ASSISTED LAPAROSCOPIC ADENOMYOMECTOMY WHO WERE SUFFERING FROM HABITUAL ABORTION

**Youn-Jee Chung, Mee-Ran Kim**

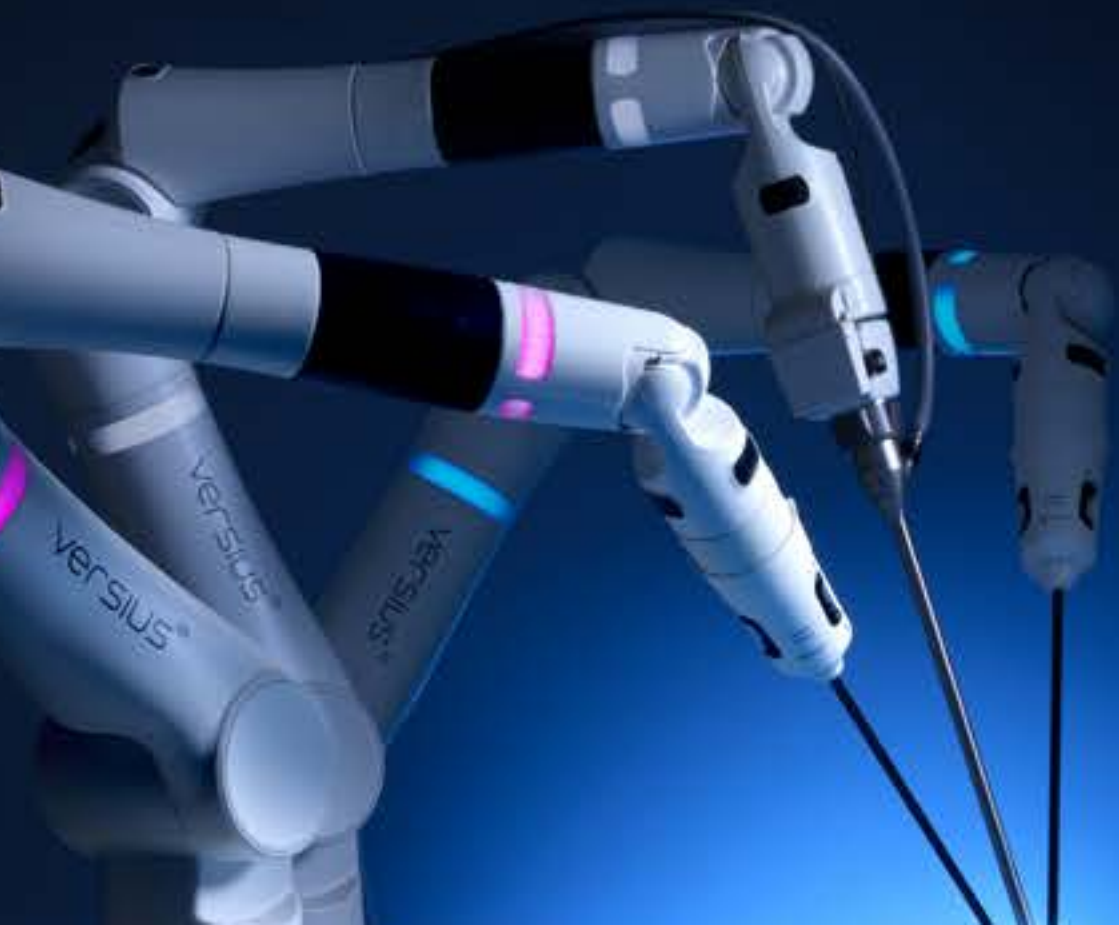
Department of Obstetrics and Gynecology, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea

Adenomyosis is defined as a presence of endometrial gland and stroma in the myometrial layer. It can cause dysmenorrhea, pelvic pain and heavy menstrual bleeding, as well as subfertility and infertility. It also increases risk of pregnancy-related complication such as preterm labor or premature rupture of membrane during pregnancy. Adenomyosis is common in middle-aged women, therefore, hysterectomy was a treatment of choice. However, the recent trend of delaying marriage and childbearing, prevalence and incidence of adenomyosis in younger, unmarried women seems to be increased. These women want to preserve their uterus and fertility. If adenomyosis symptoms are difficult to control with medication, infertility and recurrent miscarriages because of adenomyosis, and patients who have a desire to preserve fertility or the uterus, surgical treatment options could be considered.

An adenomyomectomy is a conservative-surgical option for preserving fertility. Conventional laparoscopic adenomyomectomies present difficulties in adenomyoma removal and suturing of the remaining myometrium. Robot-assisted laparoscopic surgery could overcome the limitations of conventional laparoscopic surgery. We report a case of natural pregnancy and successful delivery after robot-assisted laparoscopic adenomyomectomy who suffering from habitual abortion.

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### Venue

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[www.uni-sofia.bg](http://www.uni-sofia.bg)

### Registration

The congress is open to all registered participants.  
On site registrations are available at the Registration desk at the congress venue at the following rates:

Registration type	Rate
<b>Group A</b>	
SERGS member	500 €
Specialist	650 €
Resident & fellow & trainee & nurse	250 €
<b>Group B</b>	
Specialist	250 €
Resident & fellow & trainee & nurse	100 €
<b>Exhibitor</b>	
Exhibitor	180 €
<b>Additional fees</b>	
Certification program	350 €
Networking dinner	45 €

The above registration fees include entrance to the scientific meetings and exhibition area, congress bag, final program, name badge, coffee breaks, lunch and welcome drink at the congress venue.

### Registration desk opening hours:

Thursday, September 26	8:00-18:00
Friday, September 27	8:00-18:00
Saturday, September 28	8:00-13:00

## Networking event

Date: Friday, September 27, 2019

Time: 20:00-23:00

Place: Sheraton Sofia Hotel Balkan (5, pl. „Sveta Nedelya“ Square, 1000 Sofia)

Price: 45 EUR (3-course dinner and entertainment included)

Tickets can be purchased at the Registration desk by Thursday evening.



## Badges

Participants are requested to wear their badges at all time during the meeting.

## Certificate of attendance

Certificates of attendance can be picked up at the Registration desk from Saturday, September 28 morning.

## E-posters

E-posters are displayed during the whole duration of the meeting in the foyer. We encourage attendees to see the e-posters during the breaks.

## Language

The official language of the congress is English. No simultaneous translation will be provided.

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## Local secretariat

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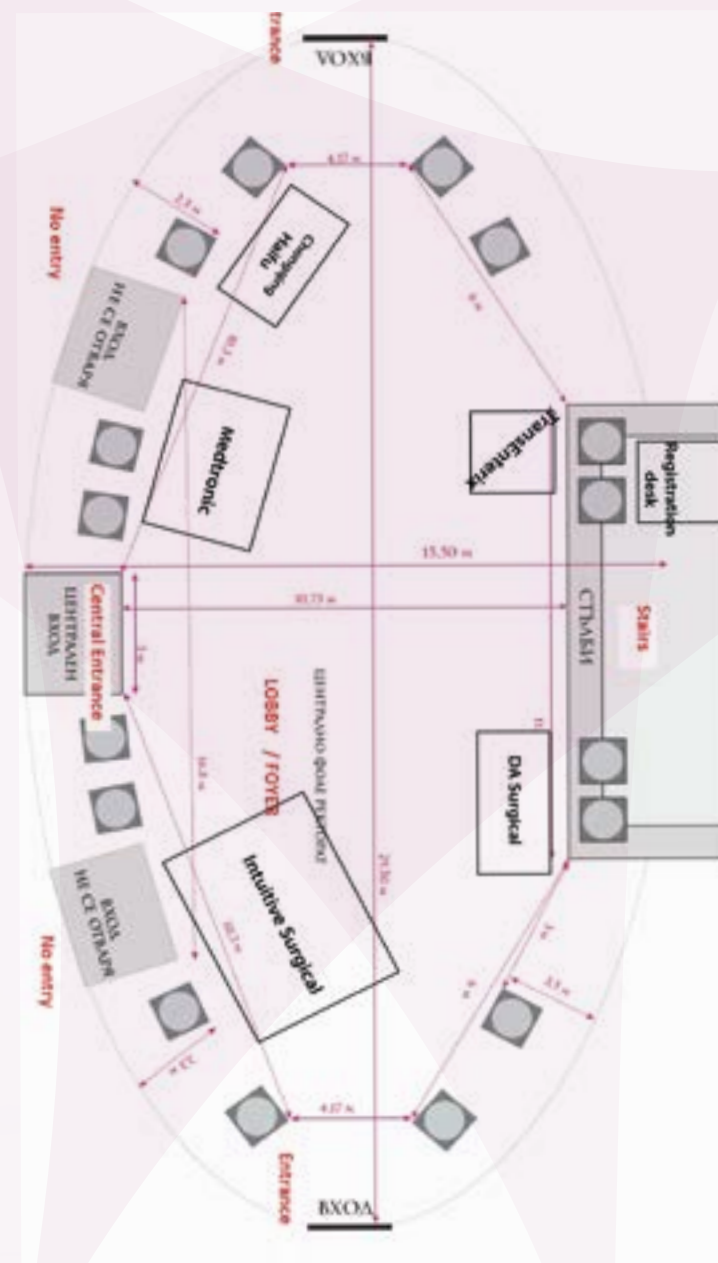
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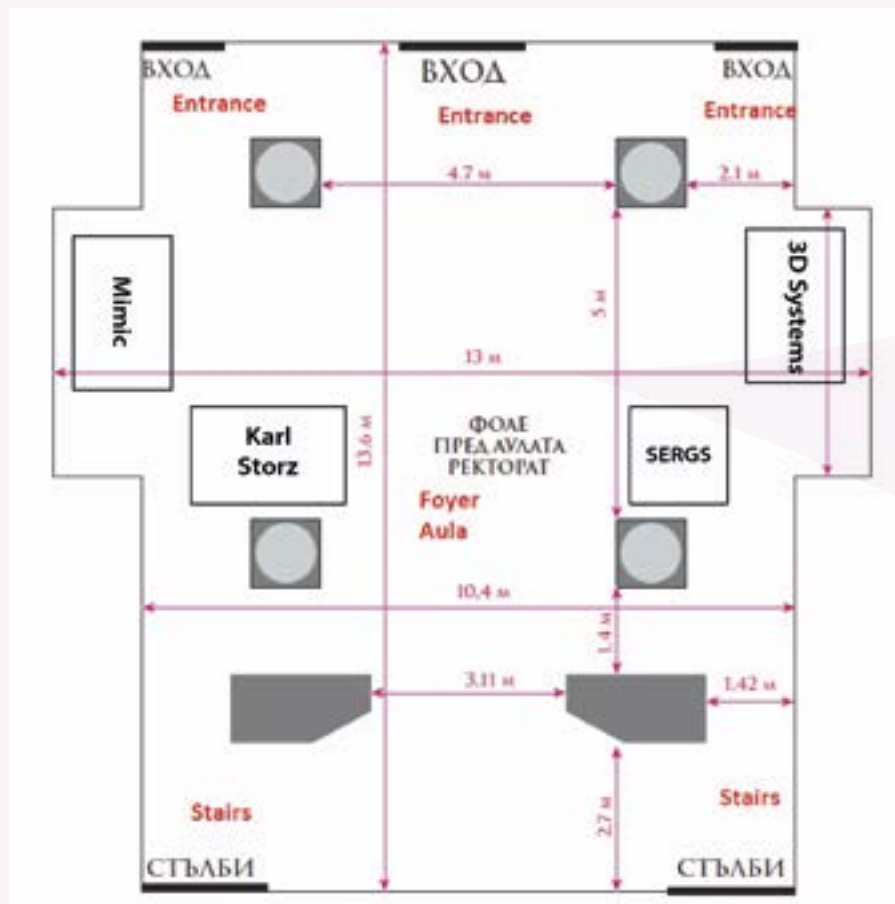
## EXHIBITION

### Exhibition area floor plans

#### Ground floor



## First floor



## Exhibition hours

Exhibition area opening hours:

Thursday, September 26	12:00-17:30
Friday, September 27	9:00-17:30
Saturday, September 28	9:00-12:30

## NOTES



## NOTES

## NOTES

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