



## Robotic Applications in Gynecologic Oncology

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### Quality of Life

An important consideration in medical care, quality of life refers to the patient's ability to enjoy normal life activities. Some medical treatments can seriously impair quality of life without providing appreciable benefit, while others greatly enhance quality of life.

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## Surgery is a “Controlled Injury”

- Bleeding
- Infection
- Scarring
- Bowel Dysfunction
- Wound Complications
- Pain

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## Cancer Surgery

- Therapeutic
- Diagnostic

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## Clinical Applications

- Cardiac Surgery
- Urology
- Thoracic
- General Surgery
  
- Gynecology  
FDA approved, April 2005

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## Objectives

- Explore indications in gynecology oncology
- Develop reproducible techniques
- Teach and demonstrate
- Catalogue outcomes

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## Teaching programs

- Video documentation
- Procedure manual
- Webcast
- Case observations
- Training course

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## Procedures Performed

- Hysterectomy
  - Simple
  - Radical
- Lymph-node Dissection
  - Pelvic
  - Para-aortic
- Oophorectomy
- Ovarian Cystectomy in Pregnancy
- Vaginectomy
- Uretero-ureterostomy
- Ovarian Remnant
- Post-hyst Staging
- Radical Parametrectomy
- Radical Traechelectomy
- Pelvic Exenteration
- Ileal Conduit

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## Clinical Experience To Date

Hysterectomy	340
Radical Cervical	102
Endometrial Cancer Staging	246
Other	79
Total	767

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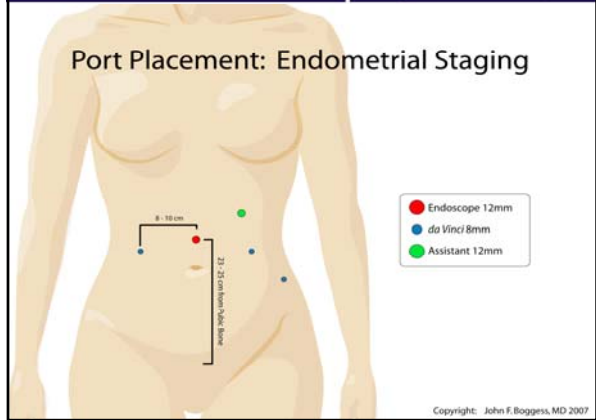
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## Port Placement: Endometrial Staging



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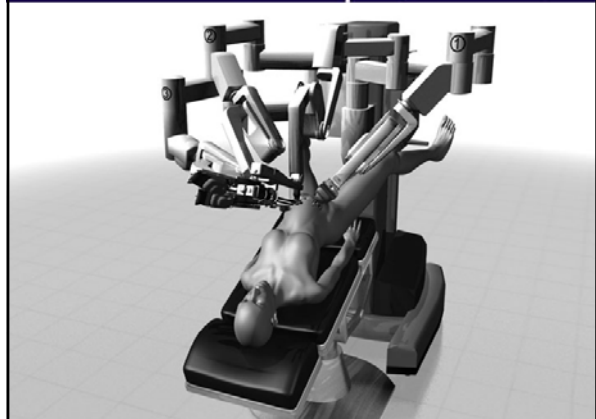
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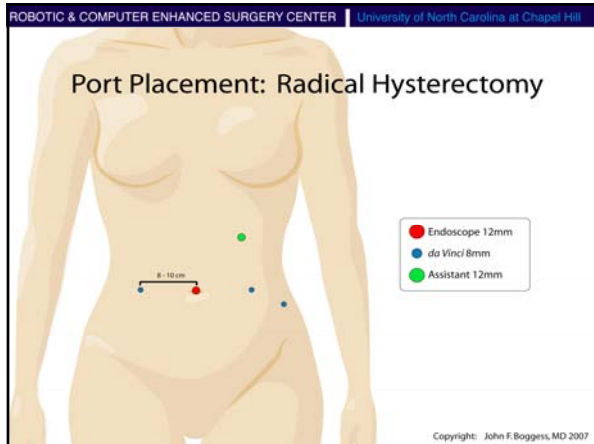
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ROBOTIC & COMPUTER ENHANCED SURGERY CENTER | University of North Carolina at Chapel Hill

### Characteristics and results of patients who underwent robotic versus open radical hysterectomy and lymphadenectomy

Pre-Operative Characteristics	Robotic (n=51)	Open (n=49)	P value
<b>Age (years)</b>			0.029*
Mean	47.4	41.9	
Std. Dev.	± 12.9	± 11.2	
<b>BMI</b>			0.08*
Mean	28.6	26.1	
Std. Dev.	± 7.2	± 5.1	
<b>Uterine Weight (g)</b>			0.64*
Mean	137.8	132.6	
Std. Dev.	± 56.5	± 55.5	
<b>Prior Abdominal Surgery</b>	26/51 (51%)	9/49 (18.4%)	

Note: Age, BMI, body mass index; and Uterine weight comparisons based on \*t-tests have been used for all continuous variables

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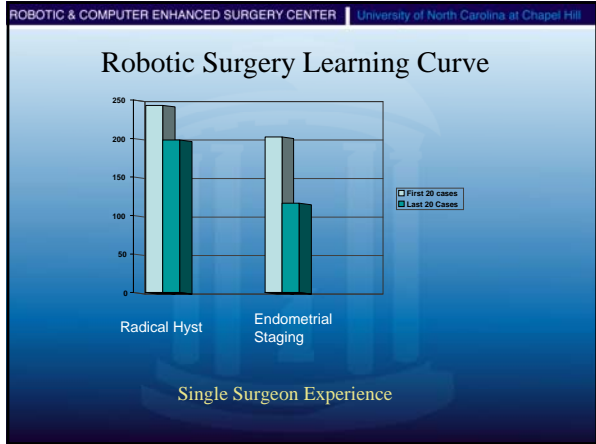
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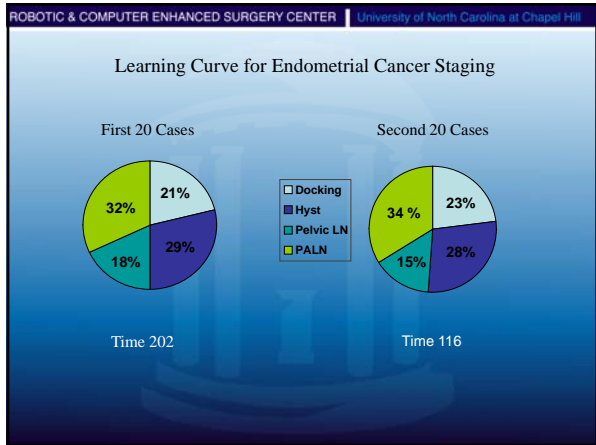
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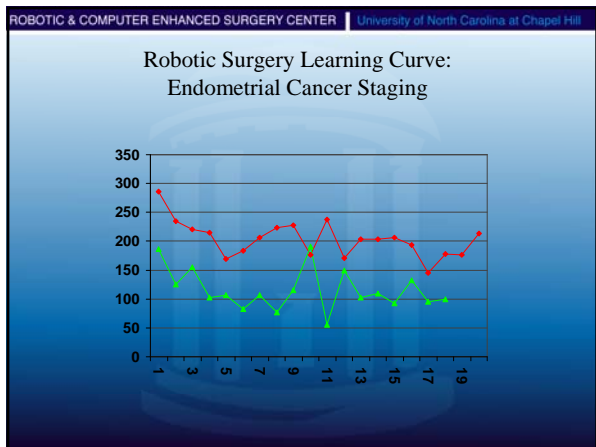
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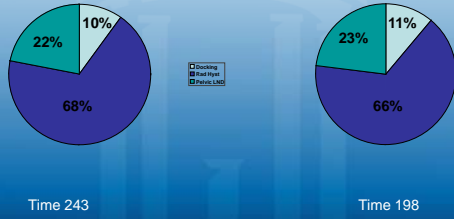
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### Learning Curve for Radical Hysterectomy: Single Surgeon



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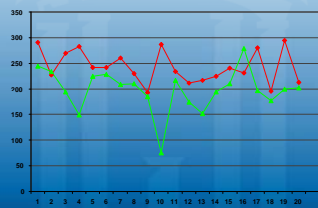
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### Robotic Surgery Learning Curve: Radical Hysterectomy



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### Conclusions

- Reproducible procedures for cervix and endometrial cancer.
- Superior outcomes to open, laparoscopy techniques.
- Technique of choice
- Teachable to fellows and residents
- Simplification

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