

Urinary Incontinence and Quality of Life in Endometrial Cancer Patients after Robotic-Assisted Laparoscopic Hysterectomy with Lymph Node Dissection



Lioudmila Lipetskaia, MD, MS¹, Shefali Sharma, MD¹, Marian S Johnson, MD², Donald R Ostergard, MD³, Sean Francis, MD²



1-Department of Female Pelvic Medicine & Reconstructive Surgery, Cooper University Hospital, Camden, New Jersey
 2-Department of Female Pelvic Medicine & Reconstructive Surgery, University of Louisville, Louisville, Kentucky
 3-Department of Female Pelvic Medicine & Reconstructive Surgery, Harbor/UCLA Medical Center

Introduction

Endometrial cancer is the most common cancer of the female reproductive system. Surgical treatment consists of total hysterectomy and bilateral salpingo-oophorectomy (BSO) with possible lymph node dissection.

However, little is known about long-term morbidity when lymph node dissection is combined with robotic-assisted hysterectomy with BSO in relation to pelvic floor dysfunction.

We hypothesized that patients who underwent robotic-assisted hysterectomy with lymph node dissection would not exhibit scores indicative of more distress in quality of life questionnaires related to urinary incontinence symptoms as compared to patients who did not require lymph node dissection.

Methods

This is a retrospective cohort of patients who underwent robotic-assisted total laparoscopic hysterectomy from June 2010 to March 2013.

Patients who underwent robotic-assisted hysterectomy, BSO and lymph node dissection with a final pathology of Stage 1 endometrial carcinoma were identified and constituted the study group.

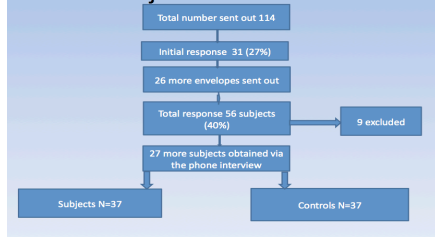
Patients who underwent robotic-assisted hysterectomy and BSO for the same diagnosis were selected as controls.

The Urinary Distress Inventory-6 (UDI-6) and Incontinence Impact Questionnaire-7 (IIQ-7) were administered to each subject.

For the primary outcome of IIQ-7 score, 34 patients in each group would achieve 81% power to detect a clinically significant difference of 10% in IIQ-7 score.

A two-sample t-test was used to compare the scores of the two groups. Pre- and perioperative variables were analyzed using the chi-square test. Linear regressions were carried out to determine the relationship between IIQ-7 score and risk factors for urinary incontinence.

Subject enrollment



Results

The response rate to the questionnaire was 52.8%.

Risk factors for urinary incontinence did not significantly differ between the study and control groups.

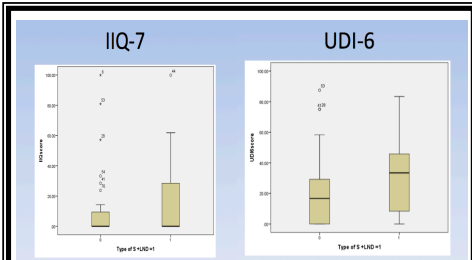
Operative time was longer in the study group (189±63 compared to 134.9±41 minutes, $p < .000$).

Preoperatively, 21 patients reported experiencing some type of urinary incontinence.

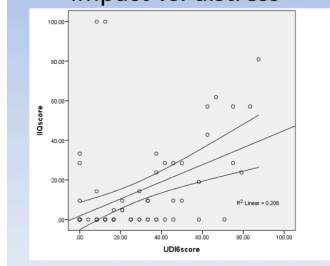
The total postoperative urinary incontinence rate was 74.3%.

The odds ratio for developing new onset urinary incontinence was 2.4 with 95% CI .62-9.5 (p -value = 0.18).

Results



Impact vs. distress



Conclusions

The rate of urinary incontinence in our study population of women treated for endometrial cancer was similar to previously published studies [1,2].

However, we were not able to demonstrate score values indicative of more of an effect on quality of life related to urinary dysfunction as reported in prior studies.

Strengths of this study were the matched design and power analysis for sample size determination. We were able to control for pre-existing factors while analyzing the quality-of-life impact using validated measures.

No correlation was noted between adjuvant radiation therapy and more severe incontinence symptoms or a higher impact on disease-specific quality of life as reported in the literature [1,2]. This may be due to the fact that postoperative adjuvant radiation therapy for Stage 1 endometrial cancer at our institution is almost exclusively vaginal brachytherapy, which is associated with lower bladder toxicity.

The non-response rate was 47.2%. There was a difference of 7.5 years between respondents and non-respondents, with non-respondents being significantly older. As age is a strong predictor of urinary incontinence, it is an important confounder to consider when making comparisons across groups.

Patients who underwent robotic-assisted hysterectomy and BSO with lymph node dissection reported higher but not statistically different rates of both by lower urinary tract symptoms compared to those without lymph node dissection.

References

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2. Nosti P, McDermott C, Schilder JM, Stehman F, Woodman P. Symptoms of pelvic floor disorders and quality of life measures in the postoperative patients with endometrial cancer. *Clin Ovarian Other Gyn Cancer* 2012;5(1): 27 -30.