

Evaluating urinary continence and preoperative predictors of urinary continence after robot assisted laparoscopic radical prostatectomy

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J Urol. 2010 Jul 17. [Epub ahead of print]

Purpose: We evaluated urinary continence using a validated questionnaire in a series of consecutive patients who underwent robot assisted laparoscopic radical prostatectomy, and identified the preoperative predictors of the return to urinary continence.

Materials and Methods: The clinical records of 308 consecutive patients who underwent robot assisted laparoscopic radical prostatectomy for clinically localized prostate cancer at a tertiary academic center were prospectively collected. All patients were continent before surgery. Urinary continence was evaluated using the International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form instrument. All of the patients reporting no leak in response to the question, "How often do you leak urine?" were defined as continent.

Results: A total of 273 patients (90%) were continent 12 months after robot assisted laparoscopic radical prostatectomy. Continent patients were significantly younger (61.4 +/- 6.4 vs 64.1 +/- 6.1 years, $p = 0.02$) than those who were incontinent. On univariable regression analysis patient age at surgery (OR 1.075, $p = 0.024$) and Charlson comorbidity index (OR 1.671, $p = 0.007$) were significantly associated with 12-month continence status. On multivariable analysis age (OR 1.076, $p = 0.027$) and Charlson comorbidity index (OR 1.635, $p = 0.009$) were independent predictors of continence rates.

Conclusions: Using the International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form 90% of patients undergoing robot assisted laparoscopic radical prostatectomy reported no urine leak 12 months after surgery. Patient age at surgery and Charlson comorbidity index were independent predictors of the return to urinary continence, whereas notably no variable related to prostate cancer was significantly correlated with urinary continence.

Editorial Comment

Reports of urinary continence rates post robotic laparoscopic radical prostatectomy ranged from 30% to 89% at 3 months, from 50% to 95% at 6 months and from 62% to 97% at 12 months. Different investigators suggested that urinary continence maybe related to oncological characteristics, i.e.; location and aggressiveness of prostate cancer causing different dissection and excision techniques influencing the rates of urinary incontinence.

This study analyzed the predictors of return to urinary continence in a RALP series. The authors evaluated urinary continence in a series of consecutive patients who underwent RALP using a validated questionnaire and identified the preoperative predictors of return to urinary continence. Based on the ICIQ-UI questionnaire 90% of patients undergoing RALP reported no urine leak 12 months after surgery, with patient age and Charlson comorbidity index being the only independent predictors of the return to urinary continence. Interestingly, no variable concerning patient comorbidity, PCa or surgical treatment was significantly correlated with the return to urinary continence.

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