

A large, prospective analysis of factors affecting early recovery of continence after robot-assisted laparoscopic radical prostatectomy by a single surgeon

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Introduction & Objectives

To identify preoperative and intraoperative factors affecting the early recovery of urinary continence (UC) after robot-assisted laparoscopic radical prostatectomy (RALRP) using the data from the most high volume urologic center in Greece.

Material & Methods

One thousand two hundred consecutive patients undergoing RALRP performed by a single surgeon from January 2007 to March 2012 were prospectively studied using the Expanded Prostate Cancer Index Composite. Patients were evaluated preoperatively and postoperatively at 3 and 6 months and categorized according to whether they regained UC (no pad/no urinary leakage) within 6 months and variables were then compared. Univariate and multivariate Cox regression models were used to test the association between predictors and UC recovery after surgery.

Results

At 3 and 6 months after surgery, the UC return rate was 84% and 96%, respectively. On univariate analysis patient age, preoperative erectile function and performance of nerve sparing procedure (NSP) were significantly associated with UC return (all $p \leq 0,01$). On multivariate analysis age and performance of NSP were the only independent predictors (all $p \leq 0,01$). The time to achieve UC was shorter for patients with attempted NSP ($p \leq 0,001$). After adjusting for age, patients treated with bilateral or partial NSP had 1,8-fold (95%Confidence-Interval [CI] 1,45-2,27, $p < 0,001$) or 1,5-fold (95%CI 1,28-2,03, $p < 0,001$) higher chance of UC recovery compared to non-NSP group, respectively.

Conclusions

After RALRP young patients and attempted NSP are associated with improved UC. Therefore, when it is oncologically and technically feasible, a NSP should be attempted to facilitate the early recovery of UC despite the degree of preoperative erectile function.