

IS PAD PER DAY USAGE A VALUABLE TOOL FOR EVALUATING URINARY INCONTINENCE AFTER ROBOT-ASSISTED RADICAL PROSTATECTOMY?

Hypothesis / aims of study

Robot-assisted radical prostatectomy (RARP) has recently become popular worldwide because functional recovery is better than that achieved by open and laparoscopic surgery. However, urinary incontinence remains one of the most troublesome postoperative complications and thus it needs to be adequately estimated. Urinary incontinence is generally estimated based on pad usage of one or less per day. However, such evaluation is inadequate because it can include false-positive and false-negative findings.

We previously found that patients with postoperative incontinence wore pads according to the volume of urinary incontinence and replaced the pads when they were still not very wet [1].

The present study aimed to determine whether daily pad usage is a reliable measure of urinary continence during the early period after RARP.

Study design, materials and methods

Between April 2013 and March 2014, 125 consecutive patients underwent RARP at Fukushima Medical University Hospital using the 3-arm Da Vinci Si surgical system (Intuitive Surgical Inc., Sunnyvale, CA, USA) via the combined posterior and anterior intraperitoneal approach and early exposure of the seminal vesicles and vas deferens. They simultaneously completed the Expanded Prostate Cancer Index Composite (EPIC) that evaluated pad use per day. The volume of urinary leakage was judged from 1-hour pad tests implemented immediately before, and then at 1, 3, 6, 9, and 12 months after RARP according to International Continence Society recommendations. The 24-hour pad test was also implemented before RARP and one day after the urethral catheter was removed.

Results

Among patients who used one pad per day, 80.4% had urinary incontinence at least once each day. On the other hand, 6.5% of patients who used two or more pads per day had no urinary leakage and 0% and 16.6% of patients who did not use pads each day had urinary incontinence more than once each week at postoperative months 1 and 6, respectively. Findings of the 1- and 24-hour pad tests before RARP and at one day after urethral catheter removal significantly and positively correlated (Fig. 1). Among the patients who used one pad per day, 20.4%, 19.6%, 15.6%, 9.52%, and 14.0% had ≥ 5 g of urinary incontinence in the 1-hour pad test at 1, 3, 6, 9, and 12 months, respectively (Fig. 2).

Interpretation of results

The number of pads used per day did not always reflect the frequency of urinary incontinence. In addition, patients who used one pad per day did not always have urinary incontinence.

Concluding message

All evaluation tools have advantages and disadvantages. Better tools to evaluate post-surgical incontinence are required.

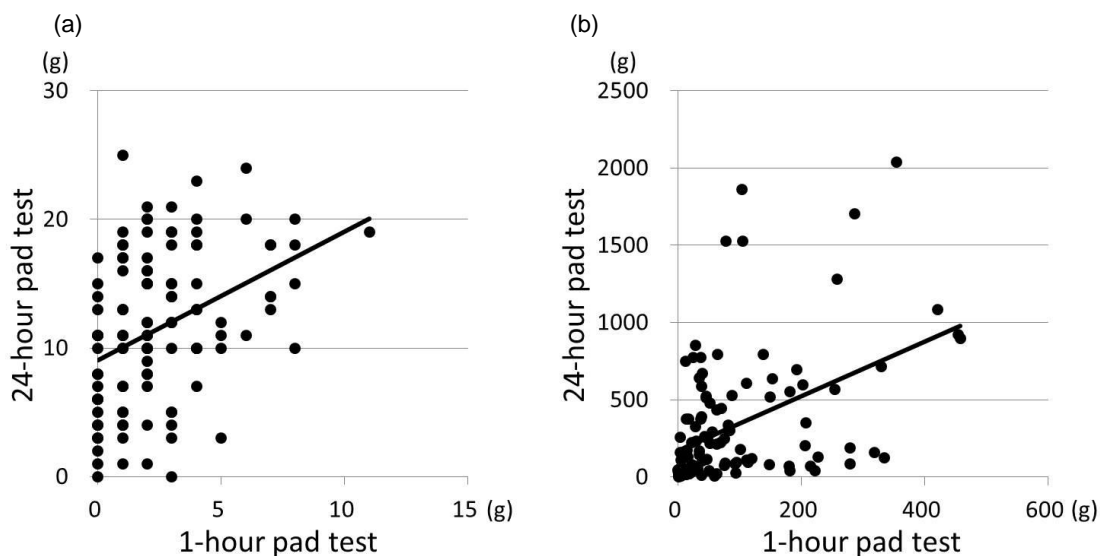


Fig. 1. Correlation between 1- and 24-h pad tests (a) before RARP and (b) one day after urethral catheter removal.

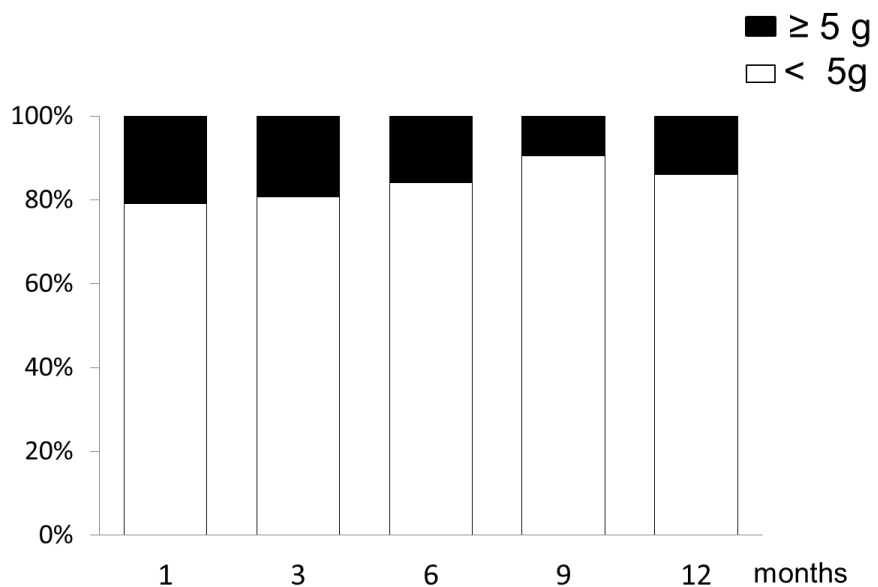


Fig. 2. Proportion of patients who use one pad per day with urinary incontinence ≥ 5 g in one-hour pad tests.

References

1. Haga N, Yanagida T, et al. Timing of Urinary Pad Exchanges Was the Most Important Factor Affecting Quality of Life in the Early Postoperative Period After Robot-Assisted Laparoscopic Radical Prostatectomy. J Endourol 2015; 29(9) :1044-51

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