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CONTINENCE CONTRIBUTES TO IMPROVEMENT OF SEXUAL FUNCTION AFTER ROBOT-ASSISTED RADICAL PROSTATECTOMY

Hypothesis / aims of study
Recovery of erectile function (EF) is slower than recovery of urinary incontinence after robot-assisted radical prostatectomy (RARP) [1][2]. The objective of this study was to evaluate the short-term association of erectile function (EF) and urinary incontinence after RARP. We tested the hypothesis that improvement of incontinence contributes to improvement of EF.

Study design, materials and methods
Men undergoing RARP at our institution between October 2010 and February 2013 were eligible. Clinical data were prospectively collected with a minimum 6-month follow-up after RARP. Preoperative EF, urinary incontinence, and health-related quality of life (HRQOL) were assessed using the erectile function domain of the International Index of Erectile Function (IIEF), question 5 of the Expanded Prostate Cancer Index Composite (EPIC), and short-form health survey with 8 questions (SF-8) scores. These questionnaires were collected at 1, 3, and 6 months postoperatively. Urinary continence was defined as wearing no pads, and improvement of EF was defined as an increase in the IIEF-EF domain score. All statistical analyses were performed using SPSS v.19 (SPSS Inc, Chicago, IL, USA), with $p < 0.05$ indicating statistical significance. The Pearson chi-square test was used to compare urinary continence and improvement of EF, and a two-way analysis of variance (ANOVA) was used to analyze relationships between continence, EF, and the mean of SF8 scores.

Results
Data were collected for 81 consecutive patients receiving RARP; 60 were analyzed and 21 were excluded for not completing the IIEF or EPIC. Mean age and prostate-specific antigen (PSA) level were 63.5 years and 8.98 ng/mL. Overall, the urinary continence recovery rate at 3 and 6 months was 58.3% and 70.0%, respectively.Urinary continence was of no significant relevance to improvement of EF at 3 and 6 months (Table 1). Eighteen men (30%) had IIEF-EF domain scores of >26. In this group, urinary continence was of significant relevance to improvement of EF at six months only (Table 2). Of three men who were not using a pad and did not have improved EF, two did not attempt intercourse during the four weeks prior to evaluation and one had no change of IIEF-EF domain score. The main effect of the physical component summary (PCS) of the SF8 was continence (Table 3), whereas the main effects of the mental component summary (MCS) of the SF8 were continence and improvement of EF (Table 4). In addition, subjects not using a pad tended to have higher PCS and MCS scores than those using a pad.

Interpretation of results
Subjects with preoperative normal EF improve their EF owing to no-pad life at 6 months after RARP. Urinary continence appears to be related to high physical and mental health HRQOL scores. Subjects with no improvement of EF postoperatively did not necessarily report reduced QOL if they had achieved continence.

Concluding message
These results suggest the possibility that improvement of incontinence contributes to the improvement of EF for subjects with preoperative normal EF at 6 months after RARP.

Table 1.

	Improvement of EF from 1 to 3 months		p
	yes	no	
Continence at 3 months			
No pad	14	21	NS
≥1 pad/day	10	15	
	Improvement of EF from 3 to 6 months		
	yes	no	
Continence at 6 months			
No pad	17	25	NS
≥1 pad/day	6	12	

EF = erectile function

Table 2.

	Improvement of EF from 1 to 3 months		p
	yes	no	
Continence at 3 months			
No pad	6	5	NS
≥1 pad/day	5	2	
	Improvement of EF from 3 to 6 months		
	yes	no	
Continence at 6 months			

No pad	10	3	0.047
≥1 pad/day	1	4	

EF = erectile function

Table 3.

	Improvement of EF			F	
	yes	no	Continence	EF	Interaction
Continence					
No pad	52.12 ± 2.38	52.98 ± 2.13	10.30※	3.70	2.27
≥1 pad/day	42.35 ± 0.00	49.46 ± 5.75			

EF = erectile function

※p<0.05

Table 4.

	Improvement of EF			F	
	yes	no	Continence	EF	Interaction
Continence					
No pad	52.05 ± 3.79	52.76 ± 3.09	5.14※	4.80※	3.71
≥1 pad/day	40.84 ± 0.00	51.85 ± 5.56			

EF = erectile function

※p<0.05

References

1. Urology 74(3):619-25
2. BJU Int 106:696-702

Disclosures

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