

HOW DOES URINARY INCONTINENCE AFFECT QUALITY OF LIFE AFTER ROBOT-ASSISTED RADICAL PROSTATECTOMY?

Hypothesis / aims of study

In robot-assisted radical prostatectomy (RARP), urologists can obtain detailed visualization of the laparoscopic procedure. RARP may be superior to other surgical therapies in 5 points: continence, potency, cancer control, complication, and positive surgical margin rate. Although the use of RARP has become widespread, no studies have reported the changes in quality of life (QOL) after RARP or the factors affecting the changes in QOL.

We used the Short Form-8 Health Survey (SF-8) to assess health-related QOL. We evaluated how QOL changed from the preoperative period to the post-RARP period and how incontinence affected the change in QOL during standing.

Study design, materials and methods

We enrolled patients undergoing RARP at our institution between October 2010 and February 2013. We used the SF-8 to assess health related QOL preoperatively and 1, 3, and 6 months postoperatively. The SF-8 was developed to replicate the SF-36v2, with 1 question for each of the 8 health domains of physical and mental health. The 8 domains we used were physical functioning (PF), role physical (RP), bodily pain (BP), general health (GH), vitality (VT), social functioning (SF), role emotional (RE), and mental health (MH). We also used 2 summarized scores: physical component summary (PCS) and mental component summary (MCS). We defined postoperative continence as non-use of pads. We examined the relationship between the 10 scores and the following factors: total operating time, console time, blood loss, resected volume (weight), catheterization time, hospitalization, and postoperative continence.

Results

Of the 113 patients who underwent RARP, 98 were eligible for this study. For 15 patients, SF-8 scores were not available at 6 months after operation. Mean age, mean body mass index, and mean level of total prostate-specific antigen were 65.1 years, 23.7 kg/m², and 9.80ng/ml, respectively. Mean values of operating time console time, and blood loss were 334.8 minutes, 249.8 minutes, and 253.2 ml, respectively. The mean resected prostate volume was 41.5 g. Surgery was performed with bilateral nerve sparing in 11.3% of cases, unilateral nerve sparing in 48.9%, and non-nerve sparing in 39.8%. At 1 month postoperatively, PF, RP, BP, VT, SF, RE, and PCS were decreased significantly. However, all these scores improved at 3 months. No operative factors affected the 8 domains and 2 summarized scores at 1 month postoperatively. PF, RP, VT, SF, RE, MH, and MCS were significantly lower in patients who failed to achieve continence at 3 months than in those who achieved continence. Furthermore, at 6 months, PF, RP, GH, SF, RE, MH, and MCS were significantly lower in incontinent patients (Table).

Interpretation of results

RARP was performed under magnified and fine vision, thus enabling finer surgery rather than open prostatectomy and decreasing the extent of surgical invasion. The precise surgical manipulations performed during RARP may facilitate achievement of continence after prostatectomy. In this study, we evaluated not only the recovery of continence but also the effects of continence on QOL after surgical therapy. Immediately after undergoing RARP, the patients showed decreased health-related QOL in 6 of 8 domains. However, all of the QOL scores improved during the early postoperative period of 3 months. We suggest that post-RARP incontinence affects the QOL during the late postoperative period rather than the early postoperative period.

Concluding message

Health-related QOL decreased immediately after RARP, but improved to preoperative levels in a few months. Our findings suggest that patients' QOL is higher when urinary continence is achieved after RARP.

Table) The effect of continence to SF-8 after RARP

	1 month			3 months			6 months		
	incontinence	continence	p Value	incontinence	continence	p Value	incontinence	continence	p Value
	n=40	n=58		n=37	n=61		n=24	n=74	
physical function (PF)	45.7±9.2	42.6±9.6	0.927	45.8±9.1	50.1±5.3	0.004*	47.7±6.9	50.6±5.4	0.034*
role physical (RP)	41.7±9.9	41.1±10.1	0.423	46.0±8.1	49.7±5.8	0.010*	46.5±8.1	51.0±5.6	0.005*
bodily pain (BP)	48.9±7.5	49.2±8.1	0.053	54.6±5.8	54.9±6.0	0.759	55.2±6.0	55.4±6.2	0.836
general health (GH)	48.5±6.9	48.5±7.3	0.185	51.0±6.0	52.7±5.0	0.173	48.8±7.6	52.4±5.2	0.030*
vitality (VT)	48.2±7.2	47.9±7.2	0.344	50.5±5.5	52.7±5.2	0.039*	51.5±5.7	52.8±5.3	0.296
social functioning (SF)	42.5±9.3	41.6±9.2	0.894	43.6±8.6	49.9±6.2	<0.001*	45.7±8.3	51.4±6.1	0.001*
role emotional (RE)	45.1±8.5	42.8±9.4	0.824	46.4±6.2	50.9±3.8	<0.001*	46.3±8.2	51.3±4.3	0.004*
mental health (MH)	49.5±7.2	46.8±7.3	0.468	49.4±6.1	53.4±3.9	0.001*	48.9±7.2	53.8±4.1	0.001*
physical component summary (PCS)	44.3±6.6	43.7±8.3	0.781	48.2±6.2	50.0±5.3	0.152	49.1±5.5	50.7±5.6	0.169
mental component summary (MCS)	47.3±7.2	44.9±7.2	0.493	46.4±5.7	51.3±3.8	<0.001*	46.4±7.9	51.7±4.1	0.001*
	*: significant values								

Disclosures

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