

## EARLY CHANGES IN LOWER URINARY TRACT SYMPTOMS AFTER ROBOT-ASSISTED LAPAROSCOPIC RADICAL PROSTATECTOMY

### Hypothesis / aims of study

Studies on changes in lower urinary tract symptoms (LUTS) after a radical prostatectomy is primarily focused on urinary incontinence and reports regarding changes in other symptoms are scarce. We prospectively evaluated the impact of robot-assisted laparoscopic radical prostatectomy (RLRP) on lower urinary tract symptoms (LUTS) and LUTS related quality of life (QOL) at the early postoperative stage.

### Study design, materials and methods

Between July 2005 and November 2006, 64 patients underwent RLRP by a single surgeon. The International Prostate Symptom Score (IPSS) and the IPSS QOL score were administered before and 1, 3, and 6 months after RLRP. 43 patients completed validated self-administered questionnaires. For preoperative total IPSS, the group was divided into those with preoperative mild (IPSS less than 8) and moderate/severe symptoms (IPSS 8 or greater). Changes in IPSS and QOL were evaluated and compared between the groups

### Results

The overall mean total IPSS and IPSS QOL score improved from 13.5 to 10.7 ( $p=0.012$ ) and 3.0 to 2.4 ( $p=0.018$ ), respectively, 6 months after RLRP. However, this improvement came after an aggravation of both the total IPSS and IPSS QOL scores at 1 month post surgery which then gradually improved up to 6 months. Both scores recovered to the preoperative state at 2 months after surgery. The sum of all voiding symptoms (incomplete emptying, intermittency, weak stream, and hesitancy) significantly improved from 7.9 to 5.0 ( $p=0.000$ ) at 6 months and this improvement was observed from 1 month after surgery. Each of the four voiding symptoms analyzed separately also showed significant improvement at 6 months. However, total storage symptoms aggravated after the operation and gradually improved to the preoperative state at 6 months. The mean total IPSS and IPSS QOL scores in men with moderate to severe LUTS significantly improved at 6 months after operation ( $p=0.014$ ). However, no changes were observed in men with preoperative mild LUTS at the same time point.

### Interpretation of results

RLRP improves LUTS, more specifically, voiding symptoms. This improvement was seen as early as 1 month after surgery and mainly in patients with preoperative moderate to severe symptoms. Overall, initial aggravation of storage symptoms can be expected at 1 month after surgery which gradually improves to preoperative level at 6 months.

### Concluding message

There is a difference in voiding and storage symptom changes during the early stages after a RLRP. Moreover, preoperative LUTS may be a significant factor in predicting its change in the postoperative period. Using these data, patients can be warned of changes in LUTS after RLRP.

<b><i>Specify source of funding or grant</i></b>	<b>NONE</b>
<b><i>Is this a clinical trial?</i></b>	<b>No</b>
<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>No</b>
<b><i>This study did not require ethics committee approval because</i></b>	<b>the study used routine questionnaires used for evaluating LUTS after a prostatectomy.</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>No</b>