

## COMPARISON BETWEEN PRE- AND POSTOPERATIVE LOWER URINARY TRACT SYMPTOMS IN LOCALIZED PROSTATE CANCER PATIENTS WHO ARE MANAGED WITH LAPAROSCOPIC RADICAL PROSTATECTOMY.

### Hypothesis / aims of study

Since lower urinary tract symptoms (LUTS) are expected to be altered after laparoscopic radical prostatectomy (LRP), the impact of LRP on LUTS in patients with clinically localized prostate cancer was evaluated.

### Study design, materials and methods

Lower urinary tract symptoms of 175 patients who underwent LRP to treat clinically localized prostate cancer between August 2006 and September 2011 were retrospectively reviewed. Among these patients, 158 patients who had follow-up period for more than 12 months after LRP were included in the study. The preoperative and postoperative (12 months) International Prostate Symptom Score (IPSS) including quality of life (QoL) score, peak urinary flow rate (Q<sub>max</sub>), and postvoiding residual urine volume (PVR) were compared. In IPSS, total score, voiding symptom subscore, and storage symptom subscore were individually evaluated. The comparison of the variables between before and after LRP was performed by using paired T-test.

### Results

From baseline to after LRP, the mean Q<sub>max</sub> and PVR changed from 15.58 ± 6.12 mL/sec to 18.90 ± 4.83 mL/sec (p = 0.07) and 40.12 ± 39.23 mL to 41.27 ± 46.02 mL (p = 0.29), respectively. Total IPSS, voiding symptom subscore, and storage symptom subscore changed from 12.68 ± 5.01 to 13.01 ± 3.18 (p = 0.59), from 8.12 ± 3.19 to 7.23 ± 6.26 (p = 0.24), and from 5.12 ± 2.20 to 5.56 ± 1.45 (p = 0.35), respectively. QoL changed from 2.81 ± 0.15 to 3.10 ± 0.58 (p = 0.27). All investigated variables of the present study did not present significant change from baseline to 12 months after LRP. In addition, the reduction of total IPSS was more prominent in patients with severe symptoms (IPSS ≥ 20), whereas the score did not change significantly after LRP in those with moderate symptoms (8 ≤ IPSS < 20). Furthermore, the IPSS score increased after LRP in patients with mild symptoms (IPSS < 8).

### Interpretation of results

LRP may exert a beneficial effect in patients with severe LUTS, but may have adverse effect on some individuals with mild LUTS.

### Concluding message

Lower urinary tract symptoms does not significantly alter after laparoscopic radical prostatectomy in patients with clinically localized prostate cancer.

**Table 1.** Comparison of uroflowmetry and IPSS prior to and after surgery

|                            | Baseline      | After LRP     | p-value |
|----------------------------|---------------|---------------|---------|
| Maximal flow rate (ml/sec) | 15.58 ± 6.12  | 18.90 ± 4.83  | 0.07    |
| Residual volume (ml)       | 40.12 ± 39.23 | 41.27 ± 46.02 | 0.29    |
| Total IPSS                 | 12.68 ± 5.01  | 13.01 ± 3.18  | 0.59    |
| Voiding symptom subscore   | 8.12 ± 3.19   | 7.23 ± 6.26   | 0.24    |
| Storage symptom subscore   | 5.12 ± 2.20   | 5.56 ± 1.45   | 0.35    |
| Quality of life            | 2.81 ± 0.15   | 3.10 ± 0.58   | 0.27    |

### Disclosures

**Funding:** None **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** PNUH-IRB Helsinki: Yes **Informed Consent:** Yes