

THE EFFECT OF NOCTURIA ON SEVERITY OF SYMPTOMS AND RESULTS OF PELVIC MUSCLE EXERCISES CONTROLLED BY BIOFEEDBACK IN PATIENTS WITH URINARY INCONTINENCE AFTER RADICAL PROSTATECTOMY

Hypothesis / aims of study

The frequency of urinary incontinence after radical prostatectomy in case of prostate cancer is up to 20%. Pelvic muscle training is used as the first line of urinary incontinence treatment after radical prostatectomy. Nocturia is defined by the ICS as waking during the night at least once to urinate. Sleep precedes every urination and follows it. We clarified the effect of nocturia in the preoperative period on severity of urinary incontinence and effectiveness of pelvic floor muscle exercises controlled by biofeedback in urinary incontinence after radical prostatectomy in case of prostate cancer.

Study design, materials and methods

We used pelvic floor muscle training controlled by biofeedback in 229 patients with incontinence after radical prostatectomy in case of prostate cancer. The age of patients was 65 (53-76)¹. The score according to ICIQ-UI-16 scale is (9-21). Incontinence duration is 2.7 (0.64-28) months. Before surgery, 118 (51.5%) patients noted the need to wake up at night 2 or more times to urinate. All patients used pelvic floor exercises controlled by biofeedback for urinary incontinence.

Results

The age of patients with nocturia was 65 (61-70), and the age of patients without nocturia was 66 (61-70) ($p=0.47$)². The score according to ICIQ-UI scale after radical prostatectomy in patients with nocturia was 16 (15-21), and without nocturia – 16 (13-18) and had no significant differences between the groups ($p=0.78$). Incontinence duration in patients with nocturia was 3.1 (1.3-6.0) months, and without nocturia – 2.8 (1.7-5.8) months. ($p=0.7$). Median of urine retention recovery on the background of pelvic muscle training controlled by biofeedback of patients with nocturia was 7.4 months. Median of urine retention recovery on the background of training without nocturia was 4.8 months. The differences between the groups were significant ($p=0.0015$)³.

Interpretation of results

Age of patients with and without nocturia had no significant differences. Severity of symptoms of urinary incontinence after radical retropubic prostatectomy also had no significant differences, depending on the presence of nocturia. Urine retention recovery period in patients with nocturia is longer than in patients without nocturia ($p=0.0015$).

Concluding message

The presence of nocturia before surgery does not affect severity of symptoms of urinary incontinence after radical prostatectomy. The rate of urine retention recovery on the background of pelvic muscle training controlled by biofeedback is more effective in patients without nocturia.

Disclosures

Funding: no **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Ethics Committee of Sechenov First Moscow State Medical University **Helsinki:** Yes **Informed Consent:** Yes

¹ Median is given, 5 and 95 percentile

²Kruskal-Wallis test is used

³Log-rank test is used