

THE STATE OF ERECTILE FUNCTION BEFORE SURGERY AND OUTCOMES OF PELVIC MUSCLE TRAINING DURING URINARY INCONTINENCE FOLLOWING RADICAL PROSTATECTOMY FOR PROSTATE CANCER

Hypothesis / aims of study

Maintenance of erectile function argues the satisfactory condition of the vascular system and pelvic organs nervous regulation. We compared the efficacy of pelvic floor muscle training via biofeedback control in the treatment of urinary incontinence after prostatectomy in patients according to the state of erectile function prior to surgery.

Study design, materials and methods

Pelvic muscle training under biofeedback control remains the first-line treatment of urinary incontinence after radical prostatectomy. This modality was employed in 67 patients who have undergone nerve-sparing radical prostatectomy. To define more precisely the state of erectile function before surgery the patients were asked to fill out a baseline IIEF-5 questionnaire. To determine more accurately the severity of urinary incontinence symptoms they were asked to complete an ICIQ-SF questionnaire. Before surgical intervention 28 patients (41.8%) had no erectile function. Fifteen patients (22.4%) had reduced erectile function (IIEF-5 total score 10-20), 24 patients (35.8%) maintained their erectile function (IIEF-5 total score 21-25).

The age of patients with preserved erectile function before surgery was 59 years (52-71), with reduced erectile function 62 years (56-74), with no erectile function – 66 years (57-73) ($p=0,002$). There were no differences between the groups with respect to severity of incontinence symptoms ($p=0,381$).

Pelvic floor muscle training is aimed at developing pelvic muscle control skills as well as the ability to regulate the strength and duration of muscle contractions.

Results

In the process of performing pelvic floor muscle exercises 24 patients (35.8%) could totally retain urine, 15 patients (22.4%) witnessed improvement in their condition manifested in reduced frequency of retention episodes, smaller amount of urine leakage, fewer urinary pads used. Twenty-four patients (35.8%) reported no changes, 2 patients (3.0%) had a suburethral sling implanted, and 2 patients (3.0%) had an artificial urinary sphincter placed.

The median time to recover urinary continence during pelvic muscle training with preserved erectile function before radical prostatectomy was 4.0 months, with reduced erectile function -5.2 months and in the absence of the latter -16.1 months ($p=0.201$).

No statistically significant correlation was found between the time of recovery of urinary continence secondary to pelvic floor muscle training via biofeedback control and age ($p=0.43$).

Interpretation of results

Recovery of urinary continence following radical prostatectomy with concurrent pelvic floor muscle training via biofeedback control tends to proceed faster in patients with intact EF prior to surgery.

Concluding message

The state of erectile function before radical prostatectomy may serve as a prognostic indicator of the efficacy of pelvic floor muscle training in the treatment of urinary incontinence post surgery.

Disclosures

Funding: Funding:N/A **Clinical Trial:** No **Subjects:** Human **Ethics not Req'd:** unknown **Helsinki:** Yes **Informed Consent:** Yes
Clinical Trial: No **Subjects:** HUMAN **Ethics Committee:** Ethics Committee of Sechenov First Moscow State Medical University **Helsinki:** Yes **Informed Consent:** Yes