Abstract Form

Abstract Title:

The importance of preserved erectile function and outcomes of pelvic muscle training in urinary incontinence after radical prostatectomy

Abstract Text:

Hypothesis / aims of study

Urinary continence is a major concern for all patients after radical prostatectomy, however not all of them plan to resume sexual activity after surgery. The purpose of the study was to refine the actual continuation of sexual function as a factor in urinary continence recovery following radical nerve-sparing prostatectomy.

Study design, materials and methods

Pelvic floor muscle training under EMG biofeedback control was employed in 90 patients with urinary incontinence after nerve-sparing radical prostatectomy. All patients answered ICIQ-SF questionnaire, bladder infection was ruled out based on investigation of findings of urinalysis and urine culture. All patients had a bladder ultrasound test to rule out the presence of residual urine. Separately ascertained was the state of erectile function prior to surgery and its significance after surgery. The primary efficacy endpoint of pelvic floor muscle training under biofeedback was reduced frequency of UI episodes, longer intervals between episodes of involuntary urine loss and fewer pads used.

Results

The patients had a median age of 64 years (range: 54-73) [1]. The duration of UI after surgery was 2.1 (0.49-40.7) months. According to the ICIQ-SF questionnaire scores 13 patients (14.4%) showed a moderate degree of UI, 58 patients (64.4%) a severe degree of UI and 19 patients (21.1%) an extremely severe degree of UI.

Before surgery erectile function was preserved in 58 patients (64.4%), while 32 patients (35.6%) had zero erectile function.

After surgery 42 patients (46.7%) wished to regain their erectile function whereas 48 patients (53.3%) did not plan to recover erectile function at the onset of UI therapy. Thus, after RP there was observed a significant reduction in actual erectile function (p=0.001) [2].

There was no significant disparity in the severity of UI in patient groups with actual and potential erectile function (p= 0.607). The duration of UI in patient groups also did not vary significantly p=0.136) [33]. The mean age of patient group with actual erectile function after RP was significantly less and amounted to 62 years (range: 52-71) compared to patients who planned no sexual contact – 65 years (range: 57-73) (p=0.004). All patients were trained to perform pelvic floor muscle exercises via EMG biofeedback. They practiced biofeedback on a regular basis.

The patients were kept under observation for eight months. According to findings from a control study in the UI group after RP and lack of actual erectile function 3 patients (3.3%) had an artificial urinary sphincter placed. Zero dynamics of incontinence symptoms was reported in 25 patients (27.8%), improvement in 15 patients (16.7%), recovery in 5 patients (5.6%). In the patient group after RP and actual erectile function post surgery 2 patients (2.2%) had a sling implanted, with no improvement in health status being reported in 8 patients (8.9%), improved condition in 7 patients (7.8%), and recovery in 25 patients (27.8%).

[1] The median, 5th and 95th percentiles are shown

[2] Pearson chi-square test is used

[3] The Mann-Whitney test is used

In patients with lack of actual erectile function and urinary incontinence after RP the median time to retrogression of clinical symptomatology of UI was 6.4 months while in patients with actual erectile function -3.5 months (p= 0.002) [4].

Interpretation of results

Pelvic floor muscle training is based on the ability of the patient to acquire the skill of isolated contraction of pelvic muscles. The actual pursuit of intimacy after RP reflects the maintenance and activity of reflex connections as well as patient motivation for treatment using biofeedback PFMT.

Concluding message

In patients who wish to continue to engage in intimate relationship after surgery the period of recovery of urinary continence is significantly less than in those who had no plans to resume sexual activity. This is due to higher motivation for treatment and the ability to restore reflex connections.

[4] The log-rank test is used