

## EFFECTIVENESS OF EARLY PELVIC FLOOR REHABILITATION TREATMENT FOR POST-PROSTATECTOMY INCONTINENCE

### Hypothesis / aims of study

Urinary incontinence after radical prostatectomy is a significant clinical problem. We aimed to investigate in this prospective study the benefit of early pelvic floor rehabilitation compared with observation alone on a large population who had undergone radical retropubic prostatectomy (RRP) at our Department.

### Study design, materials and methods

We enrolled 300 consecutive patients who had undergone RRP for clinical organ confined prostate cancer. The patients were divided in two group after catheter removal. 150 patients (mean age 65.0 years; median 65±4.79; range 51-75) of treatment group took part in a early pelvic floor muscle training (PFMT) program that begun before discharge, this program included Kegel exercises only.

While 150 patients (mean age of 66.8 years; median 68±5.33; range 45-75) of control group had no formal education on PFMT. Incontinence was assessed objectively using the 1 hour and 24 hours pad test, as well as with ICS-Male questionnaire (incontinence section only). Follow-up included controls at 1, 3, 6, and 12 months with objective and subjective evaluation of incontinence. Incontinence was measured by the number of pads used daily with 0 or 1 precautionary pad signifying continence. All patients who were incontinent after 6 months underwent urodynamic evaluation. Fisher's exact test was used for the statistical analysis.

### Results

29 patients (19.3%) versus 12 (8%) achieved continence after 1 month ( $p=0,006$ ), 111 (74%) versus 45 (30%) after 3 months ( $p<0,00001$ ), and 144 (96%) versus 97 (64.6%) after 6 months ( $p<0,00001$ ) in group A and B respectively. The age of the patients had significantly correlation with the continence at 3<sup>rd</sup> and 6<sup>th</sup> months postoperatively in group A, although had no correlation at any time in group B. Overall 93,3% of the total study population had achieved continence after one year.

### Interpretation of results

Pelvic floor exercises represents an attractive alternative; data from a Cochrane review demonstrate that PFMT is better than no treatment in terms of the incontinence duration's, PFMT reduces incontinence episode frequency by 54-72%. Pelvic floor training is defined as repetitive selective voluntary contraction and relaxation of specific pelvic floor muscles. Theoretically the rehabilitation increase the strength of pelvic muscles allows to function as the primary urethral closure mechanism. The efficacy of PFMT is dependent on the intensity of the training program, this includes frequent exercising, but also interaction with a healthcare professional. In our prospective study PFMT instruction given at the catheter removing resulted in an earlier return to urinary continence, this benefit was significant after 3 months postoperatively when 74% of treatment group regained continence while only 30% of control group regained continence ( $p<0,00001$ ). Differences between the two groups in the percentage of incontinence remaining highest for the first 6 months, and then decreased, in fact at 12 months there was no statistically significant difference between two groups. Prior studies have shown that patient age and improved surgical technique are important risk decreasing factors for urinary incontinence, however analyzing our data we found that age was not a risk factor only in the control group, but was a significant risk decreasing factor in the treatment group at 3<sup>rd</sup> and 6<sup>th</sup> months postoperatively.

### Concluding message

In conclusion after RRP an early supportive and educative approach as PFMT is recommended to reduce the duration and the degree of urinary incontinence.

### References:

- 1) Effect of pelvic-floor re-education on duration and degree of incontinence after radical prostatectomy: a randomised controlled trial. *Lancet* 2000; 355: 98-102.
- 2) The role of pelvic floor exercises on post-prostatectomy incontinence. *J Urol* 2003; 170 (1): 130-3

3) Conservative management for postprostatectomy urinary incontinence. The Cochrane database Syst Rev. 2004, issue 2. Art No: CD001843