**Pelvic floor re-education reduced incontinence at 1 year after radical prostatectomy**


**Question**
In patients with prostate cancer, does pelvic floor re-education (PFR) reduce the duration and degree of urinary incontinence after radical prostatectomy?

**Design**
Randomized (unclear allocation concealment*), blinded (patients and outcome assessors),* controlled trial with follow-up to 1 year.

**Setting**
A university hospital in Leuven, Belgium.

**Patients**
102 men (mean age 65 y) who had radical retropubic prostatectomy (maintaining pelvic-floor structures) for clinically localized prostate cancer, were incontinent 15 days after surgery (after catheter removal), and could regularly attend hospital appointments. Follow-up was 96%.

**Intervention**
Patient allocation was stratified by previous transurethral resection of the prostate and urine loss 1 day after catheter removal. 50 men were allocated to a PFR program, which consisted of individual treatment in an outpatient clinic once a week for as long as incontinence persisted, up to 1 year. The training program included education about the anatomy and function of the bladder and pelvic floor, active pelvic-floor muscle exercises, and biofeedback. After patients learned to do the exercises, they were instructed to do 90 contractions per day at home in standing, sitting, or supine positions and to integrate the contractions into their daily activities. 52 men were allocated to a placebo program, which included information about the origin of their incontinence and placebo electrotherapy that was applied to the abdomen and thighs but that could not affect pelvic floor function.

**Main outcome measures**
Incontinence rate at 3 months. Continence was defined as a loss of ≤ 2 g of urine on both the 24-hour and 1-hour pad test (i.e., difference in wet and dry pad weight). Secondary outcomes included incontinence at 1 year, duration of incontinence, and degree of incontinence (average urine loss/24 h).

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>PFR</th>
<th>Placebo</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incontinence at 3 mo</td>
<td>10%</td>
<td>44%</td>
<td>77% (48 to 91)</td>
<td>3 (2 to 6)</td>
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<tr>
<td>Incontinence at 1 y</td>
<td>4%</td>
<td>17%</td>
<td>77% (11 to 94)</td>
<td>8 (4 to 72)</td>
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</table>

**Commentary**
A recent systematic review found unclear evidence of the benefit of conservative management of incontinence after prostatectomy (1). Close examination of the trials showed that only 1 was a genuine comparison of PFR with no treatment (2). The study by Van Kampen and colleagues, which was included in the systematic review, compared PFR with placebo stimulation.

The methodologic quality, sample size, and duration of follow-up suggest that the results are meaningful and provide good evidence of the effect of PFR on incontinence. Clearly, spontaneous recovery also occurred, and some men (11%) had a persistent leakage problem. The findings suggest that PFR should be offered to all men after prostatectomy until further evidence confirms which patients will benefit most. It is not clear whether urodynamics would identify those men most likely to benefit from PFR, but a trial of incontinent women referred for conservative management found no difference in outcome for those who had urodynamic diagnoses (3).

PFR involves repeated voluntary contractions to rehabilitate striated muscle components of the continence mechanism affected by surgery. The authors provided only a limited description of PFR; but the 2 study groups were offered the same number of clinic visits and duration of treatment, and so the observed benefit of PFR is likely the result of training effects. The substantial commitment of men and health care resources for weekly clinic visits should be considered if the results are to be applied in practice. Future research should include a validated quality-of-life measure for urinary incontinence in men to determine what benefits, if any, men observe in their daily lives.

Jean Hay-Smith, MSc
University of Otago
Dunedin, New Zealand

**References**