Abstract Form

Abstract Title:

ELECTRICAL STIMULATION , PELVIC FLOOR TRAINING AND URINARY INCONTINENCE IN POST PROSTATECTOMY : RANDOMISED CONTROLLED TRIAL , DOUBLE-BLIND

Zaidan de Barros P[1], Bezerra da Silva E[1]
1. *Universidade Estadual do Rio de Janeiro - UERJ*

Abstract Text:

Hypothesis / aims of study

Determine whether the use of electrical stimulation associated with pelvic floor training as conservative treatment enhances urinary continence (UI) in men prostatectomy .

Study design, materials and methods

This study was conducted from agosto/2013 to December/2013 , at the Physiotherapy urogynecological the Federal Hospital Servants of the State of Rio de Janeiro (HFSERJ) , located in the municipality of Rio de Janeiro / RJ , Brazil . Patients after referral of Urology HFSERJ passed by a blind screening by a specialist physiotherapist in urogynecology , and then met the eligibility criteria were randomly allocated into two groups : the pelvic floor , which is the active control training group , and the group more electrical stimulation of the pelvic floor training. The weekly rate was twice the amount of sessions that was necessary to restore urinary continence , not to exceed 20 sessions . The criterion of success to achieve continence was of no use daily disposable shield . The physical therapist who specializes in urogynecology applied the interventions did not pre-and post UI , strength of the pelvic floor muscles and the impact of UI on daily life of these people . The evaluation was done by another specialist physiotherapist in urogynecology , which underwent a two-week training of standardized assessment procedures . Data analysis was blind . The sample size was obtained from a pilot study. The sample size calculation was 34 .

Results

Of the 49 patients who were assessed for eligibility for the study , 13 patients did not meet the eligibility criteria and a total of 36 patients were randomized : 20 to the group that performed the pelvic floor training (training group) , and 16 for group which held electrostimulation more pelvic floor training (group E + training) . One of the participants who belonged to group E + group training folded because I was severely depressed . The study was completed with 35 patients who received the planned treatment and were analyzed for outcomes , primary and secondary . Of the 20 patients in the training group became five continents , while the 15 patients in group E + group training nine became continents . The risk of urinary incontinence of the E + training and training groups are shown in Table 2.

Tabela 2. Of risk of urinary incontinence (criterion continence = zero pads / day) dos groups training e E + training

Tratamento	Incontinência Urinária									
	Sim		**Não**		**RA**	**RRA**	**RR**	**RRR**	**NNT**	**IC 95%**
	n	**%**	**n**	**%**						
E + training	6	40	9	60	0,40	0,35	0,53	0,47	3	- 1,30 a 0,04
training	15	75	5	25	0,75					
	21		**14**							

RA - absolute risk**; RRA -** absolute risk reduction**, RR** - relativ risk**; RRR -** relative risk reduction**, NNT -** number needed to treat**, CI -** confidence interval

The initial and final strength of the pelvic floor muscle group training values were 81.5 ± 57.3 and 130.9 ± 71.6 cmH2O , whereas the E + group training were 89.0 ± 45.1 and 167.0 ± 44.4 cmH2O , respectively. Was no statistical significance for the strength of the pelvic floor only intragroups training group (P = 0.001) and group E + training (P = 0.0002) muscles .
The initial and final values of the interference of incontinence on daily group training were 16.4 ± 2.8 and 6.8 ± 6.4 points , while the E + group training were 15.9 ± 2.9 ± 3.8 and 2.7 points respectively. Was no statistical significance for the interference of UI on daily life only within groups , training group (P = 0.0002) and group E + training (P = 0.0002) .

Interpretation of results

Five of the 20 patients in the training group and 9 of 15 patients in group E + training became continents , ie , no longer needed to wear panty shields to contain the urine lost . Thus , the absolute risk of being incontinent in the training group was 0.75 , while in group E + training was 0.40 . In this study there was a significant increase in strength both to the training group (P = 0.001) , and for the training of group E + 130.9 ± 71.6 to 167.0 ± 44.4 cm H2O (P = 0.0002) . The E + group training reduced the absolute risk of patients remain incontinent at 35 % and had a size of 3.9 times that made the training group. Thus , the proposed treatment of UI in post prostatecomizados with the association of electrical stimulation of the pelvic floor training performed in this study , proved to be effective because it allowed the rehabilitation of the pelvic floor muscles and continents become patients faster.
The UI has a major impact on health and quality of life of individuals (1,2) . Treatment can not cure it , but improve it , preventing complications and contributing positively in your daily life (2,3) . This study showed how large urinary loss suffered by these patients and how this interfered negatively in their lives . With physical therapy, performed for the significant decrease of the UI, with increasing strength of the pelvic floor muscles and thus reduce the impact of UI on daily life of these people occurred . The interference of UI on daily life training group significantly decreased from 16.4 ± 2.8 to 6.8 ± 6.4 points (P = 0.0002) , occurring in the same training group E + 15.9 ± 2.9 points to 2.7 ± 3.8 (P = 0.0002). These results have generated an effect size of -342 % and -455 % for training and E + training groups, respectively . The effect size of the group E + training was 1.3 times higher than the training group.

Concluding message

The data obtained in this study showed that the association of electrical stimulation to the pelvic floor training enhanced the urinary continence by increasing the strength of the pelvic floor muscles and decreasing the interference of UI on daily life of patients undergoing radical prostatectomy .