527

Laurienzo C[1], Magnabosco W[1], Jabur F[1], Gameiro M[2], Yamamoto H[2], Guerra R[2], Amaro J[2]
1. *Hospital de Cancer de Barretos,* ***2.*** *Medical School of Botucatu - UNESP*

POST-PROSTATECTOMY URINARY INCONTINENCE AND ERECTILE DYSFUNCTION: THE ROLE OF PELVIC FLOOR REHABILITATION

Hypothesis / aims of study

To evaluate electrical stimulation (ES) and assisted pelvic floor muscle training (PFMT) on urinary incontinence (UI) and sexual dysfunction in men after radical prostatectomy (RP).

Study design, materials and methods

One hundred twenty-three incontinent men, undergone to RP, were studied in a prospective controlled trial. The eligibility criterion was set to patients who tested higher than 3 g in a 1h-pad test 1 month after RP. In 77,5%, 73% and 81% of cases these patients presented moderate and severe UI in the groups G1, G2 and G3, respectively. Randomization was performed with R statistical software, and the allocations were concealed in sealed envelopes. Thus, the patients were randomly distributed into 3 groups: In Group 1 (G1, n=40) patients were not submitted to any treatment and were used as control; In Group 2 (G2, n= 41) were submitted to assisted PFMT; and in Group 3 (G3, n= 42) was performed ES associated with assisted PFMT. All patients were evaluated in preoperative and in 1, 3, and 6 months after RP using the following methods: Incontinence symptoms and Quality of Life (QoL) using a ICQ-SF questionnaire validated in Portuguese; Erectile function using IIEF-5 questionnaire; Urinary symptoms using IPSS questionnaire; 1-hour Pad Test and objective evaluation of pelvic floor muscular (PFM) strength using perineometer. Assisted PFMT consisting of two series of ten exercises controlled by verbal commands of a single physiotherapist after vesical catheter removal. The protocol of ES consisted of two 20-min sessions per week over a seven-week period. The Dualpex Uro 961 used a frequency of 35 Hz.

Results

There was no statistically significant difference in the demographic data in different groups. We observed a significant worsening of QoL related to UI in the first month of postoperative compared to preoperative in all groups. This statistical difference was maintained until sixth month after PR only in the control group. However, there was no statistical difference among groups in different moments (Table 1). There was a significant improvement in IPSS score in the sixth month of postoperative in comparison the other moments. There was a significant worsening in IIEF-5 score in the first month after RP compared to pre treatment. We still noted a significant improvement in erectile function in the sixth month postoperative in comparison the first month after RP. There was not statistical difference among groups in the different moments. There was a significant higher urinary leakage (1h-Pad test) in the first month postprostatectomy compared to pre treatment. We observed a significant weakness of PFM strength one month after RP compared to preoperative that improved after 3 and 6 months of postoperative, there no statistical difference among groups in these moments (Table 2).

Table 1: Median, minimum and maximum value of ICIQ-SF score in different groups (G1, control; G2, Electrical Stimulation (ES); G3, ES + Assisted PFMT) in pre- treatment (T0), 1 (T1), 3 (T3) and 6 (T6) months after treatment. Different lower case letters indicate when groups were significantly different at the same moment. Different upper case letters indicate when the moments were significantly different in the same group.

Groups	T0	T1	T3	T6	Statistical Analysys
G1	0.0 (0.0-18.0)**aA**	8.0 (1.0-21.0)**aC**	6.0 (0.0-21.0)**aB**	4.0 (0.0-21.0)**aB**	p<0.05
G2	0.0 (0.0-14.0)**aA**	11.0 (1.0-21.0)**aC**	6.0 (0.0-17.0)**aB**	3.0 (0.0-16.0)**aAB**	p<0.05
G3	0.0 (0.0-18.0)**aA**	11.0 (1.0-21.0)**aC**	5.5 (0.0-20.0)**aB**	4.0 (0.0-18.0)**aAB**	p<0.05
Statistical Analysis	p>0.05	p>0.05	p>0.05	p>0.05	

Table 2: **–** Median, minimum and maximum value of maximum amplitude of PFM contraction (cmH2O) using perineometer in different groups (G1, control; G2, Electrical stimulation (ES); G3, ES + Assisted PFMT) in pre- treatment (T0), 1 (T1), 3 (T3) and 6 (T6) months after treatment. Different lower case letters indicate when groups were significantly different at the same moment. Different upper case letters indicate when the moments were significantly different in the same group.

Groups	**T0**	**T1**	**T3**	**T6**	**Statistical analysis**
G1	49.5 (6.0-106.0)**aB**	35.7 (9.3-105.0)**aA**	56.2 (14.7-135.0)**aB**	57.5 (18.3-103.7)**aB**	**p < 0.05**
G2	45.3 (8.0-114.0)**aB**	38.7(17.3-100.0)**aA**	49.0 (20.7-135.0)**aB**	45.7 (18.7-118.0)**aB**	**p < 0.05**
G3	63.5 (23.0-107.0)**bB**	49.0 (5.0-106.7)**bA**	67.2 (7.3-131.0)**aB**	63.0 (13.7-128.0)**aB**	**p < 0.05**
Statistical analysis	**p <0.05**	**p > 0.05**	**p>0.05**	**p>0.05**	

Interpretation of results

The recovery of urinary continence was earlier in physiotherapeutic interventions groups when compared to the control group. However after 6 months spontaneous improvement by expectant effect of time ultimately achieving similar continence rates in the differents groups. PFM weakness occurred in all groups in the first post operative month, and there was similar recover of PFM strength in all groups.

Concluding message

PFM conservative management did not impact, neither on urinary incontinence nor on erectile dysfunction.

Disclosures

Funding: Supported by Sao Paulo Foundation for Research - FAPESP Proc. 2011/12154-7 **Clinical Trial:** Yes **Public Registry:** No **RCT:** Yes **Subjects:** HUMAN **Ethics Committee:** Ethics Committee of Hospital de Barretos **Helsinki:** Yes **Informed Consent:** Yes