

## PHYSIOTHERAPEUTIC FOR TREATMENT OF POST RADICAL PROSTATECTOMY URINARY INCONTINENCE

### Hypothesis / aims of study

Among the treatments for localized prostate cancer, radical prostatectomy is currently considered the most effective treatment. However, this surgery may cause urinary incontinence. The incidence of urinary incontinence after radical prostatectomy ranges from 2.5% to 87%, and is one of the most bothersome complications that impacts the quality of life of these patients [1,2]. The purpose of this study was to assess the effectiveness of early pelvic floor muscle training (PFMT), for urinary incontinence after radical retropubic prostatectomy, carried out at the Division of Urology of the Universidade Estadual de Campinas.

### Study design, materials and methods

A randomized controlled trial was carried out from August 2006 to October 2007, with 34 consecutive men, who underwent radical retropubic prostatectomy for clinically localized prostate cancer. The enrolled patients were randomized into two homogeneous groups: control and experimental. The control group CG had no formal training in PFMT. Patients from the experimental group (EG) took part of an early pelvic floor rehabilitation program that was initiated preoperatively at home twice daily and was maintained for six months or until continence was achieved. This program included Kegel exercises only.

Follow-up included controls during the preoperative program, after the catheter was removed, after 3 and 6 months, with objective and subjective evaluation. Subjective parameters were: pelvic floor muscle assessment by the PERFECT system and International Continence Society Questionnaire (SF-ICIQ). Incontinence was assessed objectively using the 24-hour pad test.

We examined descriptive variables for the group and used variance analysis (ANOVA) for repeated measures; the significance level was 5%.

### Results

After assessing muscle strength P, a significant difference between the intervals was detected ( $p = 0.00197$ ). Graph muscle strength X time indicated increased muscle strength of EG in relation to CG after the third and sixth month following surgery (Fig 1). Variance Analysis indicated no significant difference between the groups or group interaction time \* with respect to the total Quality of Life variable (QoL). There was also a significant difference as to the source of variation time ( $p = 0.0088$ ). The average and standard deviation graph shows that QoL improved after a number of months in the two groups (Fig 2).

Variance analysis showed no significant difference during the pad test between groups as to time or interaction \* group, however, there was a significant difference as to time ( $p = 0.0050$ ). All patients (CG and EG) showed a significant decrease in Diaper weight over time based on the graph of mean and standard deviation (Fig 3).

### Interpretation of results

We believe that there was no significant difference between groups because of the low number of patients in this study.

### Concluding message

There was no significant difference between groups; the hypothesis that pelvic floor exercises helped to decrease the time of urinary incontinence after radical prostatectomy was not confirmed in this study.

### References

1. Urology (2000) 56; 627-30.
2. European Urology (2005) 48; 734-38.

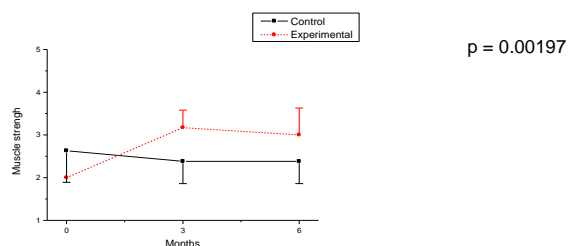


Figure 1. Mean and standard deviation of muscle strength P according to the groups (control and experimental) and over time (month).

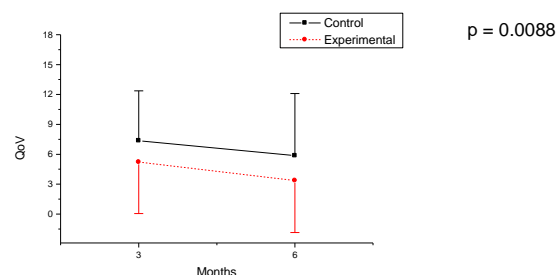


Figure 2. Mean and standard deviation of Quality of Life - according to groups (control and experimental) and over time (month).

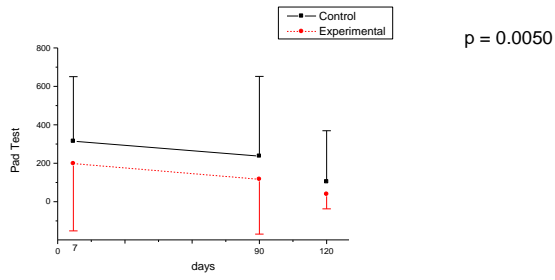


Figura 3 Mean and standard deviation of pad test according to the groups (control and experimental) and over time (days).

<b><i>Specify source of funding or grant</i></b>	<b>FAPESP</b>
<b><i>Is this a clinical trial?</i></b>	<b>No</b>
<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>Yes</b>
<b><i>Specify Name of Ethics Committee</i></b>	<b>COMITE DE ESTICA E PESQUISA - UNICAMP</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>