

IMPORTANCE OF THE PRESERVATION OF THE PUBOPROSTATIC LIGAMENT FOR THE URINARY CONTINENCE AFTER RADICAL PROSTATECTOMY.

Hypothesis / aims of study

This study aims to evaluate whether the preservation or not of the puboprostatic ligament interferes with the urinary continence mechanism in patients submitted to radical prostatectomy.

Study design, materials and methods

A randomized prospective study was performed in 37 patients divided into two groups, 21 patients with puboprostatic ligament sparing and 16 with its section. A previous urodynamic study and an evaluation of the urinary loss pressure at the 90th postoperative day were performed. A Foley catheter, inserted during surgery, was removed on the 15th postoperative day in both groups. The total follow-up time was 90 days, but all patients were clinically evaluated at the 21st, 30th, 60th, and 90th postoperative days and were invited to answer an adapted questionnaire. Continence and the average time for it to be obtained were compared between both groups. The urinary continence was evaluated through: (1) clinical evaluation; (2) the patients answered a questionnaire applied on the 21st, 30th, 60th, and 90th days after the surgery, by a qualified person, previously trained, who did not know the objective of the study(1). Dry patients were considered continent. Also, in order to quantify the urinary loss, the patients were submitted to a pad test recommended by the International Society of Incontinence (2). The Wilcoxon test was used for the comparison between the two groups through the quantitative measured variables. The chi-square test was applied to evaluate the homogeneity of the distribution of the qualitative data, according to the groups of this study; otherwise, due to the inadequacy of the estimates on the expected frequency, the Fisher's exact test was utilized. The patients have signed a free and informed consent form (Ethical committee).

Results

In this study, the mean age was 66.24 (ranging from 53 to 76) and 63.50 (ranging 55 to 72) years for the preserved and the section groups, respectively. In the preserved group, 33.3% of the patients were 70 years old or older, and in the sectioned group, only 12.5% were 70 years old or older. Although no significant difference was found, it is observed that in the preserved group, 14.3% of the patients considered themselves dry by the 21st day and in the sectioned one, 100% were still presenting urine loss, which suggests that continence was obtained earlier in the preserved group ($p=0.2432$). This difference was not noticed after the 60th postoperative day ($p=0.7048$). At the end of the follow up time (90 days), 95.2% of the patients in the preserved group and 100% in the sectioned one were continent ($p=1.00$).

Interpretation of results

Individualizing, we have observed that in the group of patients in which the puboprostatic ligament was preserved, the mean age was 66.2 years and the results were better, in terms of early urinary continence (this, because on the 21st day, 14% of the patients considered themselves dry and on the 60th day, 81% of the patients were continent, while in the group of patients that had the ligament sectioned, the mean age was 63.5 years and on the 21st day, none of the patients were continent and on the 60th day, 75% considered themselves dry). Even with a small number of cases, the preservation of the ligament has favored an earlier continence in the group of older patients.

Concluding message

In this study, despite the relative small number of cases, it was observed that urinary continence at the end of 90 days could be reached by most of the patients in both groups. There was a tendency of obtaining urinary continence earlier in the group of patients in which the ligament was preserved, as compared to the group it was sectioned, although with no statistical significance.

References

- 1- Puboprostatic ligament sparing improves urinary continence after radical retropubic prostatectomy. Urology 1998; 51:67-72.
- 2- The standardization of terminology of lower urinary tract function: Report from the standardization sub-committee of the international continence society. American J Obstet. and Gynecol; 2002, 187: 116-126.