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MALE SLING AND HEALTH RELATED QUALITY OF LIFE FOR STRESS URINARY INCONTINENCE: ARE THE LONG TERM RESULTS MAINTAINED?

Hypothesis / aims of study

Stress Urinary Incontinence (SUI) is one of the most troublesome complications after RP with a prevalence range from 5 to 57% and has a significant impact on patient Quality of Life (QoL) (1). This variation on prevalence in literature can be explained by different definition of continence and methods of assessment. The most frequently cause of urinary incontinence after RP is sphincteric insufficiency (85%) (2).

Actually, the options of treatment for SUI include conservative measures as pelvic floor exercises, biofeedback and medications. The surgical options include bulking agents, artificial sphincter and slings. Bulking agents have not been proven to have long-term success despite the minimally invasive nature of the procedure (3). The sling procedure is becoming more popular because it is technically easy, satisfactory results, low costs and absence of a device to manipulate before the micturicion.

The aims of this study were to analyze the long term results and the Health Related Quality of Life (HRQoL) of patients with urinary incontinence after RP having been treated with sling.

Study design, materials and methods

Twenty five consecutive patients with urinary incontinence after radical prostatectomy were treated with the sling technique. All patients were evaluated by history, physical examination, cystourethrogram and urodynamic evaluation. The HRQoL was evaluated with the International Consultation on Incontinence Questionnaire – Short Form (ICIQ-SF). The definition of success included patients completely dry or improved: urinary leakage during urodynamics and only one pad used or moderate ICIQ-SF score.

The statistic evaluation was done with WinStat Software©. To compare two groups the independent t-test was used and $P<0.05$ was considered significant.

Results

The mean preoperative VLPP was 70 cmH2O (±23.6), range from 25 to 110. The mean baseline ICIQ-SF at preoperatory was 18.8 (±1.57), therefore very severely scored.

Eleven polypropylene prepubic sling, 11 Argus™, and three InVance™ were performed. Five patients were reoperated: three Argus™ whose silicone columns broke, one polypropylene prepubic sling and one InVance™ that were adjusted. Therefore, 30 sling surgeries were performed in 25 patients.

The Argus™ and the mesh of polypropylene anchored in descend pubis ramus had better results, 72.7% were considered successful. The success rate of InVance© was 66%.

At six months, the slings were successful in 18 (72%) those patients constituted the Group 1 and were followed for 36 months. At 12, 24 and 36 months, one (5%), three (20%) and two (17%) become incontinent, respectively (Fig. 1).

The complication rate was 24%. There was a case of bladder perforation, which the needle was replaced. There were three cases of urinary retention, two patients used clean intermittent catheterization for 30 days and in one patient the sling was adjusted. Erosion was not observed in this group of patient. Persistent perineal pain was reported by 11 (44%) patients, but it subsided in all patients within a period ranging from 30 to 90 days.

In Group 1 the mean preoperative VLPP was 74 cmH2O (±29), range from 25 to 110, the others patients that constitute the Group 2, the mean preoperative VLPP was 65 cmH2O (±15), range from 52 to 94. There is no statistical significance comparing VLPP preoperatively ($P=0.54$).

The mean preoperative ICIQ-SF in the Group 1 was 18 (±1.67) and in the Group 2 was 19.3 (±1.03), both very severely scored. The mean postoperative ICIQ-SF score in Group 1 were 4 (±1), 4(±1), 3(±1.1) and 4(±1), at 6, 12, 24 and 36 months. Therefore, classified as mild or moderate QoL impact, lower than the baseline value (Fig.2). The mean postoperative ICIQ-SF score (six months) in Group 2 was 18 (±1.73). Comparing the mean value with the baseline score in Group 2 there was no improvement in the QoL. However, at six months the Group 1 has a positive impact in QoL comparing with Group 2 ($P<0.001$).

Interpretation of results

At six months postoperative 72% of the patients were continent. However, a progressive failure was observed over time at a rate of 20% annually. Different than those of other authors, this study analyzed the evolution of the continence rate prospectively for 36 months and permitted the conclusion that some patients initially continent become incontinent with time. Thus, in long term follow-up there was progressive failure.

The preoperatory VLPP was not associated with success and no other variables were found that can be associated with failure or success.

This study has an advantage in using a specific instrument, (ICIQ-SF) for urinary incontinence evaluation of HRQoL. This questionnaire has been able to demonstrate an improvement in the QoL of patients that became continent after sling surgery, by comparing the mean baseline score (18) to postoperatory mean score (3-4). In Group 1, these patients had positive impact on the QoL, but compared to Group 2 the patients were still quite unsatisfied. We considered the questionnaire to be a valuable instrument for the quantification of the symptoms and must be used to evaluate the result of treatment and help the patient choose a therapy.

Concluding message

The sling is an important option to treat urinary incontinence after radical prostatectomy with good results initially, however, the results decrease in a long term follow-up. The HRQoL questionnaire is a valuable instrument for the quantification of the symptoms and must be used to evaluate the result of treatment and help the patient choose a therapy.

References

1- BJU Int (2006) 97(3): 533-9.
2- J Urol (2000) 163: 1767-70.
3- J Urol 1998: 160: 364-7.

Figure 1 – Results of the sling treatment during the follow up to 36 months

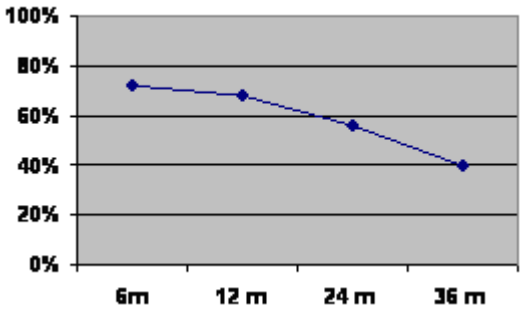
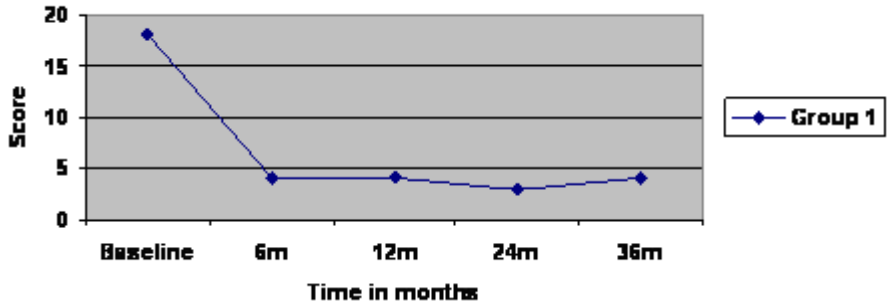


Figure 2 – The evolution of ICIQ-SF score



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