

EFFECTIVENESS OF SACRAL SURFACE THERAPEUTIC ELECTRICAL STIMULATION (SSTES) ON EARLY RECOVERY OF URINARY INCONTINENCE AFTER LAPAROSCOPIC RADICAL PROSTATECTOMY: A PROSPECTIVE STUDY.

Hypothesis / aims of study

Urinary incontinence is a common problem after radical prostatectomy. Sacral Surface Therapeutic Electrical Stimulation (ssTES) is one of the neurobionics treatments of overactive bladder and urge or stress incontinence through the efferent and afferent nerve. We analyzed the benefit of ssTES soon after laparoscopic radical prostatectomy (LRP) in terms of time to recovery and rate of urinary continence.

Study design, materials and methods

Thirty-four patients who underwent LRP performed by a single surgeon between July 2008 and June 2009 were included in this study. After surgery, the patients were randomly assigned to two treatment groups for urinary continence. Fourteen patients were undergone pelvic floor muscle exercise alone soon after the LRP (PME group), and 20 patients received pelvic floor muscle exercise and ssTES (ssTES group). In ssTES group, patients performed ssTES twice a day for 15 minutes each for 1 month immediately after removing the urethral catheter (day 5). Urinary continence was defined that patients do not require a pad to keep their clothing dry and was evaluated between these two groups at 1, 3, 6 and 12 months postoperatively.

Results

Recovery rate of urinary continence in ssTES group was 85% and 100% at 6 and 12 months, respectively. In contrast, recovery rate in PFE group was 57% and 64% at 6 and 12 months, respectively. There was a significant difference between ssTES group and PFE group at 12 months postoperatively ($P=0.007$). Multivariate analysis revealed that ssTES treatment was significantly associated with recovery rate of urinary incontinence at 6 and 12 months postoperatively ($P=0.041$, $P=0.044$ respectively). On the other hand, patient age, prostate weight, body mass index and nerve sparing had no significant impact on recovery rate. No remarkable adverse event was observed during the study period.

Conclusion

ssTES is safe and seems to be effective for early recovery of urinary continence after LRP.

<i>Specify source of funding or grant</i>	none
<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	No
<i>Is this a Randomised Controlled Trial (RCT)?</i>	Yes
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	the ethics committee of kitasato university of medicine
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes