

THE EFFECTIVENESS OF ELECTRICAL STIMULATION (ES) FOR TAKEOUT IN OUTPATIENTS WITH OVERACTIVE BLADDER

Hypothesis / aims of study

To clarify the quantitative and qualitative effectiveness of electrical stimulation (ES) for takeout in outpatients with overactive bladder.

Study design, materials and methods

In a prospective study, the subjects were 13 outpatients (68.2 ±11.3 years old, 7 men and 6 women) diagnosed as the overactive bladder. All of them had treated internal medicines more than three months before ES. ES was used Sacral Surface Therapeutic Electrical Stimulation (ssTES). Outpatients treated an ES machine in their home after they were explained how to use by nurse. They had to stick a pair of elements on their sacral surface on their own twice in a day. They were evaluated before and after completion of a month of ES in their home by voiding diary, first sensation (FS), quality of life questionnaire (I-QOL), OABSS. They were asked about satisfaction of ES treatment and the reason by interview.

Results

In the comparison before and after ES, there were significant reduction in a day frequency of urination from 11.1±3.8 times to 9.3±2.3 times ($p=0.004$), and in a night from 2.4±1.7 times to 1.6±1.2 times ($p=0.01$). FS increased from 188.8±83.4 ml to 216.7±83.2 ml, but there was not a significant increase. There was no significant difference in I-QOL and OABSS. Ten patients (77.0%) were satisfied with ES as a result of the interview, and the reason were to had become to be able to endure urinating comfortably than before, to ease the adjustment of the drinking water and to defend against the cold stimulation, to sleep deeply at night, and to get family especially spouse understanding about their urinary disturbance. They were talking with their family about feeling of ES and their urinary disturbance during the treatment. The reason for three patients of dissatisfaction was not able to change the symptom, to receive the family's cooperation at all. They felt just troublesome. In the comparison satisfaction and dissatisfaction, all quantitative evaluations were not significant difference.

Interpretation of results

It was made clear that ES let bladder capacity increase¹⁾, but the dominant difference was not examined for FS. In addition, the change of the QOL related to incontinence of urine was not a significant, too. However, the urination number of times decreased, and the subjective satisfaction of the patient became higher. The patient often appeals for family's lack of understanding him or her to stand urgency and insomnia. Ikeda²⁾ points out strong relevance between OAB and depression. It was suggested that effectiveness in ES for takeout was not only a physical effect but also easy to catch the support of the family when it was used. ES may be effective in giving treatment satisfaction for the patient who is not satisfied with oral medicine.

Concluding message

1. ES for takeout made a day and a night frequency of urination decrease.
2. QOL related to incontinence of urine was not a significant.
3. 77% Patients were satisfied with ES.
4. The main reason of satisfaction were to had become to be able to endure urinating comfortably than before, to ease the adjustment of the drinking water and to defend against the cold stimulation, to sleep deeply at night.
5. The effectiveness in ES for takeout was not only a physical effect but also easy to catch the support of the family when it was used.
6. ES may be effective in giving treatment satisfaction for the patient who is not satisfied with oral medicine.

References

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Specify source of funding or grant	no funding
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	The Ethics Committee of Faculty of Medicine in Mie University
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes

