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POSTERIOR TIBIAL NERVE STIMULATION TWICE A WEEK IN FEMALE PATIENTS WITH LOWER URINARY TRACT SYMPTOMS

Hypothesis / aims of study
Some researches have proposed that intermittent percutaneous posterior tibial nerve stimulation (PTNS) could be performed weekly or 3 times per week in patients with overactive bladder syndrome with the same results. The aims of the study is to evaluate the efficacy of PTNS in Chinese female patients with lower urinary tract symptoms and the possibility of the using it twice a week.

Study design, materials and methods
A total of 22 female patients, mean age 45.1 years, with the main complaints of lower urinary tract frequency/urgency symptoms, were enrolled in a prospective open study, where they underwent a 30-minute sessions twice a week, for a total of 10 times, of percutaneous posterior tibial nerve stimulation. The average duration of symptoms was 3.2 years. Of the 22 patients, 16 patients were urodynamically diagnosed as having hypersensitive bladder (four patients), detrusor instability (two) and normal findings (10). The response to the treatment was assessed using a voiding diary and the 36-item short-form health survey quality-of-life questionnaire. At the end of treatment, the patients were allowed to evaluate the trial with a grade of no effect, some effect and significant effect.

Results
All patients completed the ten sessions of treatment with no complications. A statistically significant improvement was found in daytime and nighttime voiding frequency, daytime voiding volume and nighttime lowest voiding volume variables. No statistically significant changes were found in nighttime highest voiding volume variables and SF-36 scores, except the self-reported health status transition, which was lower after the treatment. Of the 22 patients, 10 patients, who evaluated the trial as having had some effect, had more significant improvement statistically in the nocturia than did the other 12 patients, who evaluated the trial as having had no effect. However, the other diary index scores were not significantly different between the two groups.

Interpretation of results
PTNS was introduced as a peripheral form of sacral nerve stimulation aiming at simplicity and less invasiveness than the latter. Our study had also confirmed this with good acceptance in Chinese female patients. And the patients could receive their treatment at their convenience time.
Voiding volumes and voiding frequencies were significantly improved statistically, although the reduction in the number of episodes was not remarkable from a clinical point of view. This phenomenon was supported by the self-evaluation results of the patients, in which none regarded the treatment as having had significant effect on their symptoms. About half of the patients, who had evaluated the trial as having had some effect, had a statistically significant decrease in nocturia comparing to those, who had evaluated as having had no effect. This suggests that a positive change in nocturia might have a remarkable impact on patients' judgments. It was also the same for the self-reported health status transition in SF36 questionnaire, which got worse after the trial, indicating that the failure in reducing the voiding frequency to a reasonable level did not satisfy the expectation of the patients.

Concluding message
Intermittent percutaneous posterior tibial nerve stimulation might be an alternative treatment for patients with lower urinary tract symptoms.

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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 Beijing Friendship Hospital ethical committee approved the study protocol.**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**