

PSYCHOLOGICAL AND PSYCHIATRIC FACTORS AS PREDICTORS FOR SUCCESS IN SACRAL NEUROMODULATION FOR LOWER URINARY TRACT DYSFUNCTION

Hypothesis / aims of study

To evaluate if psychological and psychiatric factors can predict the outcome of test stimulation or permanent treatment with sacral neuromodulation.

Study design, materials and methods

Between 2006 and 2009, patients with overactive bladder syndrome or non-obstructive urinary retention who were eligible for test stimulation were included. Before test stimulation, all patients completed the Amsterdam Biographic Questionnaire (ABQ), which measures the personality traits of the patient, and the Symptom Check-List-90-Revised (SCL-90-R), which is a screening instrument for neuroticism. The answers are combined in nine primary symptom scales: Anxiety, Depression, Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Phobic Anxiety, Anger-Hostility, and Sleeping problems. The total score of the primary symptom scales was used as a general measure of neuroticism. The results of the questionnaires were related to the outcome of test stimulation and permanent treatment. Besides the questionnaires, we also included the psychiatric history as a potential predictive factor.

Results

Fifty-four patients (10 men and 44 women) were included. In total, 38 patients (70%) were diagnosed with overactive bladder syndrome and 16 (30%) with chronic non-obstructive urinary retention. Fifteen patients (28%) reported a psychiatric disorder in their medical history, which is specified in table 1. Univariate analysis showed no relation between the ABQ and SCL-90-R questionnaire parameters and the outcome of test stimulation or the occurrence of adverse events with permanent treatment.

A history of psychiatric disease was not related to the outcome of test stimulation, but was shown to be a positive predictor for the occurrence of adverse events with permanent SNM treatment (OR 20.0, 95% CI 2.68-149.0, $p=0.001$). Patients with a psychiatric history had a 75% chance of experiencing adverse events vs. 13% in patients without a psychiatric history.

Interpretation of results

In the current study, we found no relation between the scores of the ABQ and SCL-90-R questionnaires and the outcome of test stimulation or chronic SNM. Hence, screening with these instruments for the selection of eligible candidates does not seem useful. However, a history of psychiatric disease was significantly related to the occurrence of adverse events during follow-up.

Concluding message

Patients with a medical history of psychiatric disease appear to be more likely to encounter adverse events with permanent SNM treatment.

Table 1. Specification of psychiatric disorders in patients with a psychiatric history (n=15). One patient was diagnosed with 3 different psychiatric disorders.

Psychiatric history	number of patients
Mood disorder	10
Anxiety disorder	3
Pain disorder	3
Gender Identity disorder	1

<i>Specify source of funding or grant</i>	WAMU Scientific Foundation (Partners: Medtronic, GlaxoSmithKline, AstraZeneca, Astellas, Abbot)
<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>	No
<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>	Dutch Medical Ethical Committee (METC)
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes