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ROLE OF SYMPTOMS DURATION AS PROGNOSTICATOR FOR SACRAL NEUROMODULATION IN REFRACTORY OVERACTIVE BLADDER

Hypothesis / aims of study

Sacral neuromodulation (SNM) offers a well-tolerated treatment option for patients with overactive bladder syndrome (OAB) refractory to conservative treatment. The advantageous effect of SNM depends on the accurate identification of suitable candidates during pre-implant percutaneous nerve evaluation. In the Literature there are conflicting data regarding the role of age, duration of complaints and neurogenic bladder dysfunction in predicting the effect of SNM, and up to-date no specific urological pre-treatment factors have been associated with response to SNM. The aim of this multicentric study was to investigate data from 103 patients with refractoy OAB who underwent SNM implant in order to evaluate the role of symptoms duration as possible pre-treatment prognosticator.

Study design, materials and methods

From September 2001 to November 2010 a total of 103 patients attending four different urological centres with refractory OAB underwent a temporary SNM implant.

Patient data (demographics, medical history,urologic investigations, and diagnosis) were collected. Temporary implant results were evaluated from a voiding diary and patient history. More than 50% improvement of voiding parameters was considered a successful SNM and those patients were selected for implantation. We test the duration of complaints as prognosticator for predicting SNM result. We performed the Pearson correlation analysis. For comparison between groups either Student's t test or Mann-Whitney test were used, as appropriate.

Figure 1. Correlation between decrease in incontinence episodes and symptoms duration

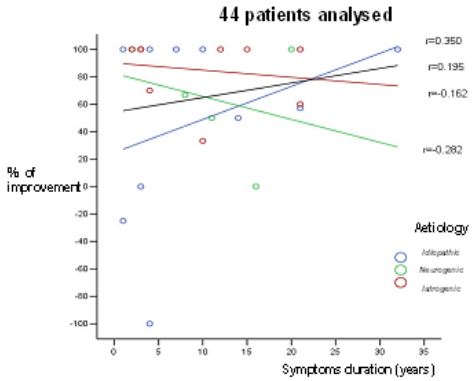


Figure 2. Decrease in incontinence episodes according to different symtpoms duration times (more or less than 4 years)

Aetiology	? 4 years	> 4 years	P-value
All (N=26)	50 ±69.7	69.1 ± 33.9	0.803
Idiopathic (N=10)	15.0 ±8.6	81.4 ±25.6	0.220
Neurogenic (N=5)	100 ±0.0*	54.2 ±41.7	0.277
Iatrogenic (N=9)	92.5 ±15	78.7 ±30.7	0.467

* Only one case

Figure 3. Correlation between decrease in micturition frequency and symptoms duration

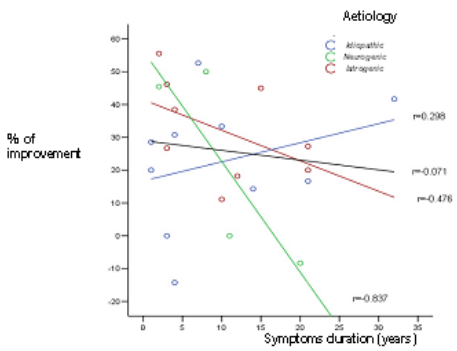
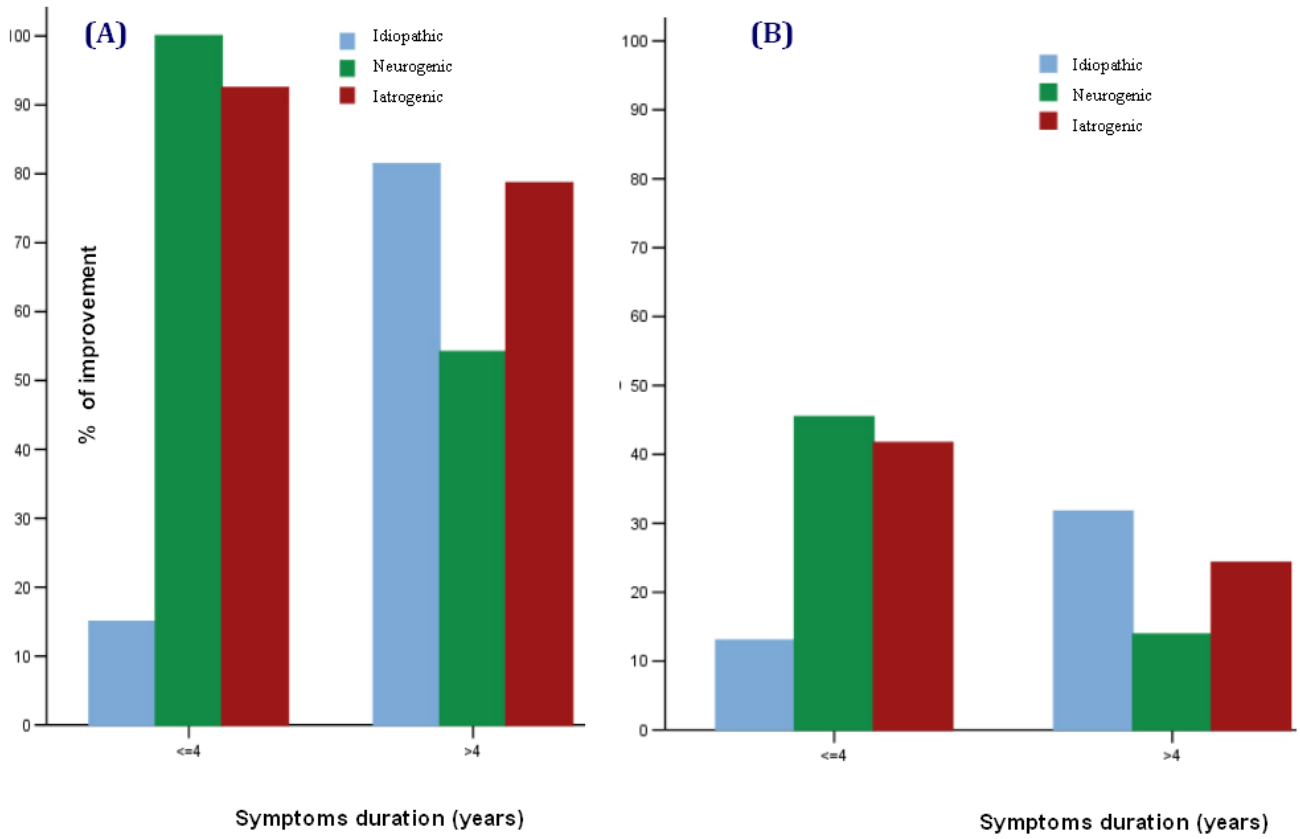


Figure 4. Decrease in micturition frequency according to different symtpoms duration times (more or less than 4 years)

Aetiology	? 4 years	> 4 years	P-value
All (N=25)	24.3±23.3	19 ± 28.2	0.621
Idiopathic (N=10)	13 ±19.5	31.7 ±16.4	0.139
Neurogenic (N=4)	45 ±0.0*	13.9 ±31.6	0.655
Iatrogenic (N=9)	41.7 ±12.2	24.3 ±12.9	0.079

* Only one case

Figure 5. Improvement rates of incontinence episodes (A) and urinary frequency (B) according to different symtpoms duration (more or less than 4 years)



Results

Eighty patients (77%) underwent a definitive implant. At a mean follow-up of 25.2 ± 22.9 months we observed a significant decrease ($p<0.001$) in the mean number of incontinence episodes/die (1.3± 1.9 versus 4.6±2.4), number of pads/die (1.2 ± 1.4 versus 3.7 ± 2.2), daily urinary frequency (8.7 ± 2.8 micturitions/die versus 12.7 ± 4.8). Stratifying patients according to the lower urinary tract dysfunction aetiology (idiopathic, neurogenic, iatrogenic), we did not find any significant correlation between symptoms duration (neither as continuous nor categorical variables) and the improvement rates of incontinence episodes (figures 1-2), and micturition frequency (figures 3-4), although we observed better results mainly in neurogenic patients with < 4-year history of urinary symptoms (figure 5).

Interpretation of results

Patients with urgency and urge urinary incontinence due to neurogenic lower urinary tract dysfunction for a relatively long period of time may have a lower chance of a positive test compared with patients with neurogenic dysfunction for a relatively short period.

Concluding message

Duration of complaints was not found to be significant predictive factor for the success of SNM.

Disclosures

Funding: no source of funding nor grant **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** It is a retrospective study that needs only a notification letter without ethics committee approval **Helsinki:** Yes **Informed Consent:** Yes