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ASSESSMENT OF SEXUAL FUNCTION IN PATIENTS SUBMITTED TO SACRAL NEUROMODULATION

Hypothesis / aims of study

Sacral Neuromodulation (SNM) is a well-established treatment for patients with overactive bladder (OAB) and chronic nonobstructive urinary retention refractory to conservative therapy.

Most published studies focus on the clinical efficacy and technical advances of this technique, evaluating essentially clinical outcomes, as well as the presence of adverse event. The impact on sexual function has been reported to a lesser extent, with a lack of randomized control trials in this area.

Aim: Assess the sexual function in patients with voiding dysfunction submitted to SNM before and after permanent implant of *Medtronic InterStim II* neuromodulator, through *Female Sexual Function Index (FSFI)* to female patients, and the *International Index of Erectile Function* (*IIEF*) *15 item* to male patients, at baseline and post-implant.

Study design, materials and methods

Prospective study evaluating 14 patients submitted to SNM between Oct/2012 and March/2014 in our Urology department, with the application of the *FSFI* to female patients, and the *IIEF 15 item* to male patients, at baseline and post-implant. Each index was then corrected to the maximum score in order to allow a valid statistical comparison between the global sexual function at baseline and post-implant.

Statistical comparison of results using the non-parametric test for paired samples (Wilcoxon), through the use of statistical software SPSS v22.

Results

Total of 14 patients submitted to NMS - 13 with voiding disorders (1 patient with urinary and fecal incontinence associated) and 1 with isolated fecal incontinence.

Mostly female (85.7%), with mean age 54.1 years (± 12.6) . 5 patients presented changes on neurological examination - 3 patients with *Familial* amyloid polyneuropathy, one with a history of stroke and a patient with spinal cord injury following surgery for disc herniation C5-C6.

64.3% of patients were indicated by chronic nonobstructive urinary retention, 14.3% by OAB (presenting urgency incontinence) and 14.3% due to combined disturb. Average time of onset of symptoms 57.7 months (± 40.9). 92.3% of patients went on to a permanent implant.

The success rate after permanent implant - defined as improvement of more than 50% in specific primary variables in voiding diary for each disturb - was 75% in patients proposed by chronic nonobstructive urinary retention, 100 % for OAB and 100 % for combined disturb.

The cure rate - defined by complete resolution of the major urinary symptoms for each disturb - was 62.5% for chronic nonobstructive urinary retention, 50% for OAB and 50% in the mixed disorder.

The evaluation of sexual function through the *FSFI* for female patients and *IIEF 15* to male patients, corrected to a global sexual function at baseline and post-implant, showed a significant improvement in the average score - 38.7 ± 32.2 at baseline to 55.0 ± 36.0 after the permanent implant ($p = 0.028$).

Interpretation of results

SNM has proved to be an effective treatment in patients with voiding dysfunction refractory to conservative therapies, conditioning a significant improvement in sexual function according to comparison of scores *FSFI* for female patients and *IIEF 15* for male patients at baseline and post-implant.

Concluding message

Patients submitted to SNM presented significant clinical and sexual improvement.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Clinical questionnaires and voiding diaries were performed and delivered during normal office visits, with no extra exams, analysis or office visits. **Helsinki:** Yes **Informed Consent:** Yes