

Neuromodulation increased scores in study of impact on sexual dysfunction

12 June 2013

A prospective study of 23 women aged 21 – 71, reported at the International Neuromodulation Society 11th World Congress, showed pelvic neuromodulation for bladder disorders also increased five of six sexual function scores in a validated questionnaire administered pre- and post-treatment.

The overall 18 percent improvement in sexual function was independent of other factors, such as age and underlying condition, according to a [statistical analysis](#) reported by Dr. Magdy Hassouna, professor of surgery (urology) at the University of Toronto. Pelvic [neuromodulation](#) with [sacral nerve stimulation](#) (SNS) delivers mild electric current to a region of the spine near the small of the back, and has been FDA approved since 1999 to treat symptoms of a number of lower urinary tract disorders.

Nerves stemming from the sacral area of the spine extend into the [pelvic organs](#) and muscles of the pelvic floor. [Sexual dysfunction](#) is thought to be caused by [spasm](#) of the [pelvic floor muscles](#), and SNS has been advocated for relief of pelvic spasms that also affect voiding and fecal functions.

Available evidence on SNS effectiveness in voiding dysfunction and bowel habit raised the question of a possible effect on the genital organs that share the same nerve regions, Hassouna said.

"We think that sacral neuromodulation may play a major role in management of [female sexual dysfunction](#) in the future," he added. He treats a high caseload of patients with bladder issues and initiated the study after seeing early reports of the subsequent effect.

"The overall response across the studies showed between a 35-50 percent improvement on sexual function based on standardized symptom score questionnaires," he said.

Female sexual dysfunction is not uncommon in women with chronic bladder issues, and the U.S. National Health and Social Life Survey reports sexual dysfunction affects 43 percent of women overall (compared to 31 percent of men).

The 23 participants, with a mean age of 51, are a larger group than had been previously reported in case series, Hassouna said. The study was also unique, to his knowledge, in applying a coefficient analysis that did not show any significant correlation between the improvement in sexual function and age, body mass index, diagnosis, overall quality of life, or urinary symptoms.

The study participants received SNS to manage diagnoses that included overactive bladder after failed medical treatment, frequency-urgency syndrome, and chronic non-obstructive urinary retention. Aspects of their sexual function were scored in a validated questionnaire prior to the start of treatment, and again an average of four months afterward.

On the sexual function questionnaire, an absolute total score of 26 or less is indicative of female sexual dysfunction. In these women, the total [sexual function](#) score improved from 15.49 to 18.33, or 18 percent. Six domains were measured with improvements seen in five, including significant improvement in desire (up 29 percent from 2.03 to 2.61), sexual satisfaction (improved by 24 percent from 2.69 to 3.34), orgasm (increased 20 percent from 2.5 to 2.99), and arousal (up 19 percent from 2.35 to 2.8).

Female sexual dysfunction can involve arousal, desire, orgasmic and/or pain sexual disorders from a variety of causes, Hassouna said, including psychological components, the nervous system, muscle tone, and hormonal factors. Treatment is mainly focused on hormonal therapies, including estrogen and testosterone, which are not without risk, and most of these hormonal therapy studies

are done in postmenopausal women.

He believes the results warrant a randomized controlled clinical trial in patients who have pure female sexual dysfunction, without voiding dysfunction or other co-existing symptoms.

Provided by International Neuromodulation Society

APA citation: Neuromodulation increased scores in study of impact on sexual dysfunction (2013, June 12) retrieved 25 January 2021 from <https://medicalxpress.com/news/2013-06-neuromodulation-scores-impact-sexual-dysfunction.html>

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