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## PROSPECTIVE EVALUATION OF SACRAL NEUROMODULATION FOR THERAPY OF NEUROGENIC AND NON-NEUROGENIC VOIDING DYSFUNCTION

### Hypothesis / aims of study

Sacral nerve modulation (SNM) is an innovative, minimally invasive treatment that uses chronic low-level electrical stimulation of the sacral plexus to recruit residual physiological function of urinary bladder detrusor, pelvic floor muscles, and the anorectal continence structures. Results of our experience with this method in 96 patients are presented.

### Study Design, materials and methods

SNM is a multistep procedure. In a test phase of so-called percutaneous or peripheral nerve evaluation (PNE), the effect of sacral neuromodulation is evaluated over days or weeks during which a bladder diary/pain protocol is kept. At our clinic, 96 patients underwent PNE procedure between January 2009 to June 2011. Of these, 76 patients had a >50% success rate and had been implanted with InterStim-Twin® device (81%; Medtronic).

### Results

Indications for SNM were refractory overactive bladder ± urinary urgency (61%), chronic nonobstructive urinary retention (42%), and refractory chronic pelvic pain syndrome (19%). Mean operation time was  $9.6 \pm 7.3$  minutes for the PNE-testing and  $52.6 \pm 13.2$  minutes for the InterStim-Twin implantation. Mean duration of hospital stay was for both procedures  $4.3 \pm 1.8$  days. There were two cases of infection at the site of neurostimulator leading to explantation of the device and reimplantation after 3 months. There were no other complications related to surgical procedure and/or device.

### Interpretation of results:

The success rates were 83% for overactive bladder and 89% for chronic retention (mean follow-up 16.8 months).

### Concluding message

In addition to the surgical procedure, the exact indication and postoperative care are important prerequisites of successful therapy with SNM. To date, no information on the number of implanted stimulators in Europe is available. This suggests the need for establishment of an European prospective registry.

### Disclosures

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