

## **SACRAL NEUROMODULATION THERAPY FOR THE MANAGEMENT OF NEUROGENIC VOIDING DISORDERS**

### Hypothesis / aims of study

The role of sacral neuromodulation therapy (SNT) in the management of idiopathic refractory overactive bladder (OAB) and/or urinary retention (Ret) is well established. The aim of this study is to answer the research question of whether the concomitant presence of neurological conditions affects outcomes.

### Study design, materials and methods

We identified patients who had undergone SNT for neurogenic bladder conditions (OAB/ Ret) at our institution from July 2002 till July 2004. The records of these patients were retrospectively reviewed for demographic characteristics, medical history, operative intervention, clinical response, and peri/postoperative complications. Clinical success was defined as progression to stage 2 implant based on the 50% improvement in symptomatology. Descriptive statistics are provided.

### Results

43 patients with neurogenic bladder conditions were identified. Their mean age was 51±14.7 years. 80% were females. The indication for SNT was retention in 8 and OAB in 35. The majority were patients with Multiple sclerosis (MS) (20/43=46.5%). The remaining neurological conditions included lumbar disc disease (6), CVA (3), seizure (2), SAH (2), cauda equine syndrome (2), Guillain-Barré syndrome, benign tremor, Parkinsonism, cervical dystonia, lumbosacral neuritis, myelomeningocele, neurosarcoidosis, and spina bifida occulta. The overall success rate in progressing to a stage 2 implant was 67.4% (29/43). The rate was the same for retention (62.5%) and OAB (66.7%). The success rate for MS patients was 70%, while it was 33.3% for patients with lumbar disc disease/surgery.

### Interpretation of results

This study answers the research question of whether the concomitant presence of neurological conditions affects outcomes. These results give us a clear indication of the relationship of neurogenic over active bladder, Multiple Sclerosis and the other neurogenic conditions.

### Concluding message

The overall success for neurogenic OAB and retention was equal. MS patients had an equivalent success rate. The presence of lumbosacral disc disease/ surgery affected the outcome negatively. These findings warrant further evaluation in a larger population.