# SACRAL NEUROMODULATION OUTCOMES IN PATIENTS WITH JOINT HYPERMOBILITY SYNDROME AND BLADDER DYSFUNCTION

## Hypothesis / aims of study

To identify the outcome in patients with joint hypermobility syndrome (JHS) / Ehlers Danlos III (EDS III) with bladder dysfunction following treatment with sacral nerve modulation (SNM).

### Study design, materials and methods

Prospective collection of data between 1997-2015 in the Uroneurology Unit at the National Hospital for Neurology and Neurosurgery, UCLH healthcare trust. Data collected included Quality of Life Questionnaires, validated Bristol female lower urinary tract symptoms (FLUTS), Wexner constipation questionnaire, PGI-I Scale, EQ-5D-5L questionnaire, visual analogue pain score, uroflowmetry, post void residuals (PVR), bladder diary, as well as complications and re operations.

### **Results**

Twelve patients (mean age 29) with joint hypermobility and bladder dysfunction were identified who had undergone sacral nerve modulation. All the patients were female. Chronic urinary retention was identified in 50% of patients, 33% had complex bladder dysfunction with both voiding dysfunction and urgency, 17% suffered from an overactive bladder. 25% complained of urogenital pain and 17% also suffered from bowel evacuatory dysfunction. EDS III was diagnosed in 50%, 42% with joint hypermobility and 1 patient was diagnosed with an undifferentiated connective tissue disorder All patients showed initial success in management of their symptoms following stage 1 SNM, with improvement in QOL, FLUTS, PVR and uroflowmetry. After stage 2 SNM 83% (10/12) patients suffered from complications resulting in 4 patients having removal of the entire system. One patient suffered from a very significant complication due to the vascular component of her EDS, suffering a mid-brain event and requiring resuscitation and ITU management. 70% complained of loss of effectiveness of the device with recurrence of their bladder symptoms. 25% also complained of significant leg/buttock pain. 40% were identified to have displacement of their electrode or battery on x ray.

## Interpretation of results

Patients with JHS/EDS show initial response and improvement in their bladder symptoms following SNM however in the long term the majority suffer complications and failure of the device.

#### Concluding message

Although SNM is a potential form of treatment for bladder dysfunction in patients with JHS/ EDS III, it should be used with caution and in highly selected patients who must be counselled about the significantly higher risks of failure and pain.

#### Disclosures

Funding: no funding Clinical Trial: No Subjects: HUMAN Ethics not Req'd: This was prospective data collection of data already required for clinical management of all patients undergoing sacral nerve modulation at this unit Helsinki: Yes Informed Consent: Yes