

THE EFFICACY OF STOLLER AFFERENT NERVE STIMULATION IN FREQUENCY/URGENCY SYNDROME: A RANDOMISED CONTROL TRIAL

Aims of Study

The symptom complex of urgency, frequency and urge urinary incontinence is common. Patients are usually found to have detrusor instability and treated with anticholinergic drugs with unpleasant side-effects, leading to poor patient compliance.

We studied the efficacy of Stoller Afferent Nerve Stimulation (SANS) in patients with urgency frequency syndrome. The objective of this randomised control trial was to see if this form of treatment is effective.

Methods

In this pilot study, patients were selected from those attending the Urology Clinics at our District General Hospital. The inclusion criteria were patients with symptoms of at least 6 months duration, a clinical diagnosis of urgency, frequency syndrome and urodynamic findings of detrusor overactivity. 22 patients have been included in this study that have completed the trial. Patients were computer randomised to either the treatment arm or as controls. All patients received SANS treatment, which consists of stimulating the posterior tibial nerve (L4,5 S1,2,3) with a percutaneous needle with current upto 10 mAmps. Each session lasted 30 minutes every week for 12 weeks. The controls had sham treatment without nerve stimulation.

During this period, patient's personal experiences and treatment results were recorded through Quality of life (QOL) questionnaires, SF36 Health Survey and Micturition Diary. At the end of the trial all treatment arm patients and some controls also underwent repeat urodynamic testing to assess the outcome.

Results

There were 22 patients with a mean age of 52.63 years (28-78yrs). 11 were in the treatment arm and 10 patients acted as controls (1 patient discontinued treatment). In the treatment arm 7 of the 11 patients showed significant improvement in their QOL and their symptoms with a reduction in their day and night time frequency, urgency and urinary incontinence. The detrusor overactivity demonstrated at pre-SANS treatment was not seen at 12 weeks post-SANS (Fig.1 & 2). Two patients in the treatment arm did not show any major improvement either in their symptoms or at urodynamic studies and two patients had some objective improvement but urodynamic findings of detrusor overactivity

Patients in the control arm did not show any improvement symptomatically or at urodynamic assessment (Fig.3 & 4).

Conclusions

Neuro-modulation appears to have an effect on urgency frequency symptoms in overactive bladders. This trial confirms that SANS is effective in majority of the patients, although larger numbers are required to prove long term efficacy.

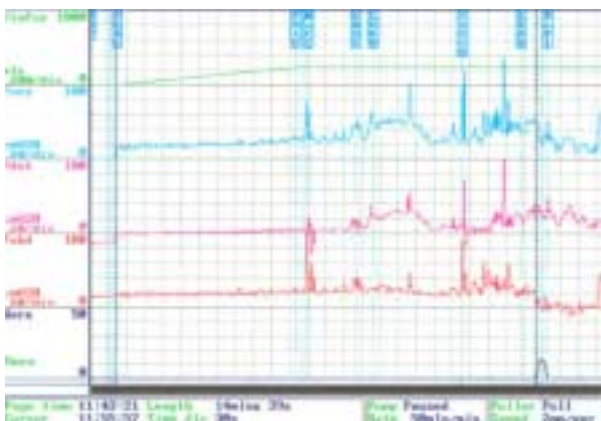


Fig. 1 70yr/F long standing symptoms, Pre-SANS Urodynamics (Treatment arm)

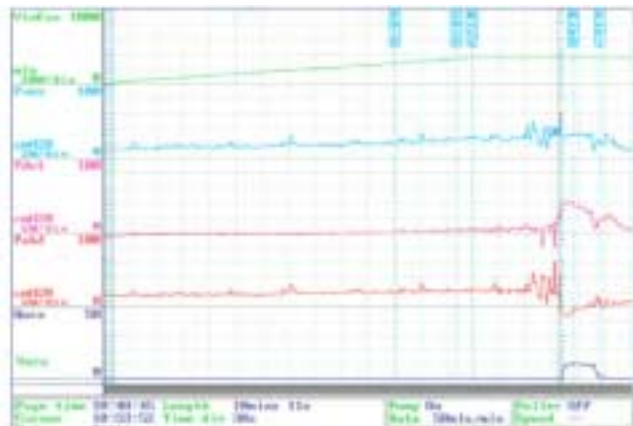


Fig. 2 Post-SANS Urodynamics, absence of detrusor overactivity

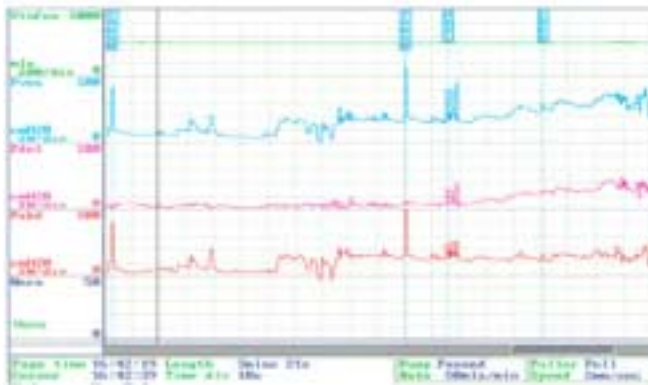


Fig. 3 64yr/F Pre-SANS (Control)

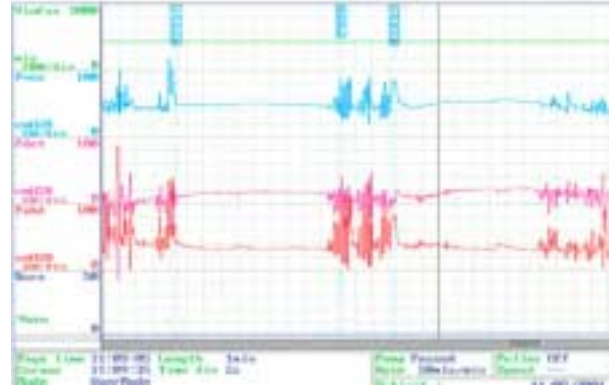


Fig. 4 Post-SANS (Control)