No correlation was found between QoL scores and any other urodynamic parameter such as initial voided volume, volume at first contraction, height of isometric contraction, maximum bladder capacity or pressure flow parameters. Contrary to what might be expected the apparent severity of DI judged at cystometry does not correlate well with the impact of DI on women's quality of life. Voiding diaries perform much better in this respect.

Conclusions

When assessing women with GSI there is good correlation, between objective measures; VCU and pad tests, and impact on quality of life. This is relevant when assessing interventions in GSI. Objective measures are useful in evaluating treatment with standardised subjective measures providing additional information.

When assessing women with DI there is little association between laboratory urodynamic variables and the effect symptoms have on women's quality of life. Laboratory urodynamic investigation is an unphysiological test which, while invaluable as a diagnostic tool, cannot be expected to duplicate womens symptoms during daily life. These findings are in agreement with other studies which have found no relationship between urodynamic findings and symptom scores in DI; symptomatic severity does not correlate well with any cystometric measurements. [1]

There would, therefore, appear to be a limited place for follow-up urodynamics in the assessment of theraputic interventiopns for detrusor instability. Symptomatic measures, QoL questionnaires and frequency / volume charts appear to be more valuable.

[1] Neurourol Urodyn 1996; 15: 279-280

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SACRAL NERVE ROOT STIMULATION FOR LOWER URINARY TRACT DYSFUNCTION: OVERCOMING THE PROBLEM OF LEAD MIGRATION

Introduction: Sacral nerve root stimulation is an accepted therapeutic option for the management of refractory lower urinary tract dysfunction (1,2). Preoperative trial stimulation using a temporary electrode allows for appropriate selection of patients who will benefit from a permanent sacral neuromodulator. The ease of insertion of a trial electrode and the low morbidity associated with permanent sacral neuromodulation makes this an attractive therapeutic option (1). Peripheral nerve evaluation (PNE) is usually performed using a single wire-strand PNE lead (Medtronics USA). One of the common problems encountered with this lead during trial stimulation is migration of the lead-tip resulting in a failed trial (3,4). This may arise secondary to inadvertent migration away from the sacral nerve root with movement and frequently results in repeat electrode insertion and trial stimulation. A new PNE lead containing coiled wire-strands was developed to overcome this technical problem. This allows for lead extension during movement and may help maintain contact between the lead-tip and the sacral nerve root.

Aims: The aims of this study were to evaluate migration of these two PNE electrodes and the response to trial stimulation using the new lead.

Methods: Twelve women with symptoms of severe sensory and or urge incontinence of twelve months duration were prospectively recruited. Each failed to respond to medical and or physiotherapy protocols. All women underwent voiding cystometry and a diagnosis was made using ICS criteria. All patients with a diagnosis of bladder hypersensitivity at urodynamics underwent cystourethroscopy and biopsy and had macroscopic and histological evidence of interstitial cystitis. A one-week urinary diary was completed prior to and during test stimulation. Both electrodes were used for trial stimulation, the original 041830-002 model and the new 3057 model (Medtronics, USA). Foramen needles were first placed in both S3 foramina under local anaesthesia and a

ground electrode was sited over the lateral chest wall. Accurate localisation was determined by evaluating the appropriate motor and sensory responses to electrical stimulation. Once accurate placement was achieved the electrode leads were passed down the foramen needles and coupled to a hand-held pulse generator.

Lateral sacral X-rays were performed following insertion and prior to lead removal. The distance between the lead-tip and the ventral surface of the S3 foramen was measured on each radiograph by two independent assessors. Lead migration was evaluated by comparison of the distance from the S3 foramen to the lead-tip immediately following lead insertion and prior to lead removal. The efficacy of continuous sacral nerve root stimulation was assessed over a seven-day period using the new lead. Subjective improvement in symptoms was assessed by analysis of the urinary diaries before and during therapy. A reduction of 50% or more in the mean number of incontinent episodes and or urinary frequency per day was interpreted as a positive response.

Results: The mean patient age was 49 years (range 23-79 years). The mean duration of symptoms was 42 months (30-120 months). 7(58%) had a diagnosis of detrusor instability and 5(42%) interstitial cystitis. One connector pin lead on the PNE 3057 model became detached at the time of insertion and required replacement. There were no complications recorded during the trial period. 10(83%) patients were positive responders. There was good correlation between the distances measured by both assessors between the lead-tip and ventral surface of the S3 foramen on X ray after insertion ($r = 0.88$) and prior to removal ($r=0.95$, Pearson's correlation test). The mean distance migrated by the new lead was 4mm (range 2-11mm) compared to a mean migration distance of 12mm(range 10-45mm) for the old lead ($p = 0.02$, Wilcoxon rank sum test).

Conclusion: The new PNE electrode described in this study is associated with a high positive response rate during trial stimulation and reduced lead migration. This new lead may help overcome the problem of determining whether a negative trial stimulation is due to lead migration or true non-response and reduce the need for bilateral lead placement or repeat test stimulation.

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Title (type in CAPITAL LETTERS, leave one blank line before the text):

The Role of Angiotensin II in Detrusor Overactivity

AIMS OF STUDY: Detrusor overactivity is a major cause of bladder dysfunction and has a dramatic impact on health care costs and quality of life. Despite the considerable prevalence of detrusor overactivity, the pathophysiology of this problem is poorly understood.

Angiotensin II (AngII) plays an important role in the development and progression of cardiovascular and renal diseases [1]. An overproduction of locally generated Ang II can be induced by mechanical stretch and is observed in experimental animals models of hypertension such as