PWE-067

PUDENDAL NERVE STIMULATION FOR BOWEL DYSFUNCTION IN COMPLETE CAUDA EQUINA PATIENTS

doi:10.1136/gut.2011.239301.330

A George,* T C Dudding, R J Nicholls, C J Vaizey [1]*Physiology, St Mark's Hospital, London, UK*

Introduction Abnormal bowel function is a major disability in patients with complete cauda equina[1] syndrome (CES). With sacral nerve stimulation (SNS) being unlikely to work in these patients due to damage sustained to the sacral nerve roots,[2] treatment options are limited.

Aim To assess the effect of chronic pudendal nerve stimulation (PNS) in complete CES.

Methods Complete CES patients, who failed to improve with conservative treatments, underwent insertion of a permanent PNS electrode[3] followed by a 3-week screening period. A permanent neurostimulator was implanted for a ≥50% reduction in number of incontinence episodes per week (incontinence patients) or a 50% improvement in the frequency of defecation and/or a ≥50% reduction in the feeling of incomplete evacuation post defecation (constipation patients), as measured by a prospectively kept bowel diary.

Results Thirteen patients (11 female, 2 male, mean age: 46 years) underwent temporary screening. Five patients had faecal incontinence and eight patients had constipation secondary to the CES. All five patients with faecal incontinence symptoms showed a >50% improvement during the trial phase in the number of episodes of faecal incontinence per week (mean (SD) 9 (10.4) pre vs 0 (0.5) post)) (p=0.04) and in their ability to defer defecation (minutes; mean (SD) 2 (1.8) pre versus 11 (5.5) post) (p=0.02). The St Mark's Scores improved from a mean of (SD) 18 (1) pre to 4 (4.6) (p=0.003) at the 1 month visit. Five of the eight constipation patients improved during the trial phase in their bowel movements per week (SD) (3 (0.4) pre versus 8 (1) post)(p=0.11) and in their sense of incomplete evacuation (80% pre versus; 0% post) (p=0.004). The Wexner constipation scores improved from a mean (SD) of 17 (3.2) pre to 9 (1.8) (p=0.03) at the 1 month visit.

One patient lost efficacy at 6 months due to a lead migration. One patient had an infection which required removal and re-implantation of the permanent implant. Improvement in bowel function was maintained in nine of the ten implanted patients at a mean of 12 (SD 3.2) months follow-up. 6 patients improved in their urinary function with improved ability to defer urination and reduction in number and volumes of urine leakages.

Conclusion PNS is a promising new treatment in patients with bowel dysfunction secondary to complete CES.

Competing interests None.

Keywords cauda equina syndrome, neurostimulation, Pudendal nerve stimulation.

REFERENCES

1. Coggrave M. Neurogenic continence. Part 3: Bowel management strategies. *Br J Nurs* 2008;17:962–8.
2. Gstaltner K, *et al*. Sacral nerve stimulation as an option for the treatment of faecal incontinence in patients suffering from cauda equina syndrome. *Spinal Cord* 2008;46:644–7.
3. George AT, *et al*. A new minimally invasive technique for pudendal nerve stimulation. *Colorectal Dis* 2010;(In Press).