

INSERTION OF TEMPORARY ELECTRODES FOR SACRAL NERVE STIMULATION TESTING UNDER LOCAL ANAESTHETIC IS RELIABLE AND COST EFFECTIVE.

Topic/ Key words: Lower Bowel Dysfunction

Hypothesis / aims of study

Sacral Nerve Stimulation (SNS) is an increasingly common treatment for patients with either faecal or urinary incontinence. The aim of this study was to determine if temporary electrode implantation under local anaesthesia (LA), with reliance on sensory response rather than motor response, gives as good a response rate as implantation under general anaesthetic (GA) with its reliance on motor response to stimulation.

Study design, materials and methods

A retrospective review of a prospectively completed database of patients treated with sacral nerve stimulation was performed. The type of anaesthetic used for each patient was not randomised but reflected patient choice, availability of theatre lists, and increasing experience with the technique of electrode insertion. Patients had a successful test period if they had more than a seventy percent improvement in their measured parameters (Vaizey Incontinence score [1], No. of incontinent episodes per week, and per day).

Results

111 patients with faecal incontinence underwent a two week trial of SNS. Forty seven (42%) had their temporary electrodes implanted under LA and 64 (58%) under GA. There was no statistically significant difference between the two groups (LA and GA) in relation to the improvement in Vaizey score ($P=0.15$), incontinence episodes per day ($P=0.73$) and incontinent episodes per week ($P=0.93$). There was also no statistical difference ($P=0.14$) in the percentage of successful trials between the LA group (64%) and the GA group (77%).

Interpretation of results

Similar success rates for temporary trial with SNS can be achieved with LA and GA. In 2006 Cohen et al studied thirty-five patients who underwent testing and then permanent SNS for urinary incontinence. In contrast to our results they found that a successful test period was more likely if motor rather than only sensory responses were elicited during the insertion of the temporary electrode.[2] In 2005 Hetzer et al presented a retrospective review of twenty patients with faecal incontinence who underwent a two week SNS screening period, and concluded that the success rate of screening was not influenced by type of anaesthesia.[3] In contrast to the above reports, our study has assessed a far greater number of patients and is the first to show that successful SNS screening in faecal incontinence is not affected by type of anaesthesia or reliance upon motor responses.

Concluding message

The visualisation of the motor response to S3 stimulation under GA is not necessary to evaluate which patients will have a successful response to stimulation. Insertion under LA is associated with reduced costs, shorter hospital stay, quicker recovery, and avoids the risks of general anaesthesia.

This work has been submitted to Diseases of the Colon and Rectum on the 31st March 2009, and is currently under review.

References

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N/A

Is this a clinical trial?

No

What were the subjects in the study?

NONE