Functional results and patient satisfaction with Sacral Nerve Stimulation for idiopathic faecal incontinence

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Background

- Sacral Nerve Stimulation (SNS) has become an established treatment option for severe faecal incontinence.
- Treatment efficacy has mainly been evaluated by using bowel habit diaries and incontinence scores.
- With these evaluation tools SNS has revealed excellent results.
- Patient satisfaction has until now not been explored in details.

Aim

To document patient satisfaction with SNS-therapy and to evaluate the relationship between patient satisfaction and clinical outcome assessed by bowel diaries and symptom scores.

Material and Methods

- Retrospective analysis of prospectively collected data in patients treated with SNS for idiopathic faecal incontinence in Aarhus, Denmark and Maastricht, The Netherlands in the period 2000 -2009. 158 patients were implanted.
- At most recent follow-up 127 (80%) were identified as having active SNS-therapy.
- A questionnaire evaluating treatment satisfaction, bowel habits, QoL, and a bowel habit diary were mailed to these patients.

Results

- 108 (85%) of the patients responded. – 99 (91.7%) patients had the pacemaker activated.
- 75 (75.8%) of the patients, with active SNS-therapy, were satisfied with current treatment.
- Significant differences were seen between the satisfied and dissatisfied patients at follow-up.
- Patients were comparable at baseline (Table).

<table>
<thead>
<tr>
<th></th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>P - value (M-W test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline Age</td>
<td>60.1(30-78)</td>
<td>60.7(37-83)</td>
<td>0.51</td>
</tr>
<tr>
<td>BMI</td>
<td>27.2(20-40)</td>
<td>25.8(18-37)</td>
<td>0.04</td>
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<tr>
<td>Inc. episodes/3 weeks</td>
<td>17(1-150)</td>
<td>18(2-111)</td>
<td>0.82</td>
</tr>
<tr>
<td>Follow-up Month after implantation</td>
<td>52(41-122)</td>
<td>40.3(11-97)</td>
<td>0.08</td>
</tr>
<tr>
<td>Wexner inc.score</td>
<td>8(0-20)</td>
<td>13(5-20)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>St. Marks score</td>
<td>11(0-24)</td>
<td>16.5(9-22)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Inc. episodes/3 weeks</td>
<td>10(88)</td>
<td>9.5(1-67)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Reduction in inc. episodes</td>
<td>96(-250 -100)%</td>
<td>25(-350 -98)%</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

- A clear correlation(Pearson) between reduction in incontinence episodes and overall bowel function(r:0.44(p<0.0001), social function(r:0.55(p<0.0001)) and QoL (r:0.5(p<0.0001)) were seen (Graph). Unexpectedly, 46% of the patients with more incontinence episodes at follow-up than baseline were satisfied.
- On an Intention To Treat basis 35% of the patients initially PNE-tested were satisfied after median 39 months follow-up.
- Per Protocol Analysis, evaluating all patients initially permanent implanted, showed that 57.3% of the patients were satisfied after median 46 months follow-up.

Interpretation of results

Patient satisfaction was clearly related to reduction in incontinence episodes. Satisfaction dropped as incontinence episodes increased. Unexpectedly, 46% of the patients with more incontinence episodes at follow-up than baseline were satisfied. These patients explained that they had obtained a more active social life after SNS-therapy. Traditional evaluation, thru bowel habit diaries and incontinence scores, would consider these patients as failures even though the patients were satisfied.

Concluding message

Focus should be on patient satisfaction and quality of life, in combination with bowel scores and diaries to get a more accurate measure of SNS-therapy efficacy for faecal incontinence.