**LONG-TERM EFFICACY OF SACRAL NEUROMODULATION (INTERSTIM) IN PATIENTS WITH REFRACTORY INTERSTITIAL CYSTITIS (IC)**

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**INTRODUCTION & OBJECTIVES:** Our IC clinic in the Bernhoven hospital serves as a national reference centre for IC patients. We employ sacral neuromodulation since December 2001, in a prospective open study in IC patients who exhausted oral and intravesical therapies. We investigated the short- and long-term efficacy of permanent sacral nerve modulation (Interstim device; Medtronic) in these IC patients.

**MATERIAL & METHODS:** Percutaneous test stimulation (PNE under local, later Tined Lead under general anaesthesia) was done in 35 end-stage IC patients (31F, 4M). In 18 (17F, 1M) subjective and objective response was ≥ 50% and a permanent Interstim device was implanted under general anaesthesia. The electrode was located at the S3 nerve, either right or left. Data were collected from analogue pain- and urgency scales (0- 10 score), the O'Leary-Sant IC Symptom index (ICSI) and voiding diaries. At Baseline and 1 year after permanent implantation a Potassium test was performed.

**RESULTS:** Mean f/u from implant was 19,2 (3-26m) months. At 3 months subjective improvement was 25% in 3 patients (pts); 50% in 5 pts; 75% in 7 pts and 100% in 3 pts (total n=18). At present 11 patients exceeded 1 year follow-up. Five patients de-activated the device after an average of 10 months after having 5.8 (av) re-programming of the modulator (and 1 surgical reposition). Three of these 5 received meanwhile an Indianapouch. Six patients, average follow-up of 19m., are still (very) satisfied. They needed an average of 3.5 re-programmings. In 4 out of 6 the Potassium test turned from (strong) positive into negative!

| | Pain | Urge | ICSI | Freq /24hrs | Av. vol. | Nict. | Max. vol. |
|---|---|---|---|---|---|---|---|
| Baseline n=18 | 7 | 9 | 16 | 24x | 101ml | 3,6 | 204 |
| 3 months, n=18 | 3,5 | 4,5 | 8 | 13 | 149 | 1,9 | 280 |
| Av. 19months, n=6 | 4,2 | 4,2 | 9,2 | 11 | 144 | 1,7 | 240 |

**CONCLUSIONS:** Of 35 IC patients 50% had a positive percutaneous nerve evaluation and were implanted with permanent device. The subjective and objective symptom remission reduced from 100% at 3 months follow-up to 65% at 12 months. Predictive factors are analyzed and discussed in a separate abstract. From 12 to 26 months FU the efficacy was maintained and re-programming dropped to hardly once a year. In conclusion, sacral neuromodulation is a minimally invasive, costly but effective 'third line' treatment for refractory IC that should be offered before more expensive and invasive surgical treatments.

*1. J. Nordling. F.H. Anjum, J.J. Bade, et all. Primary evaluation of patients suspected of having IC. Eur. Urol. 45 (2004): 662-669.*