

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 $\geq 50\%$ 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 deactivated 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 al. Primary evaluation of patients suspected of having IC. *Eur. Urol.* 45 (2004): 662-669.