

SURGICAL INTERVENTIONS FOLLOWING INTERSTIM® SACRAL NERVE MODULATION IMPLANT – 11 YEARS EXPERIENCE.

Hypothesis / aims of study

Sacral Nerve Modulation (SNM) is currently gaining popularity in the treatment of Overactive Bladder (OAB), Painful Bladder Syndrome (PBS) and other Lower Urinary Tract Symptoms (LUTS). Re -operation rate remains however a concern. There are very few reports addressing the issue of re-operation after SNS implant with the long follow-up. Overall the reported re-operation rate in implanted cases was 33%¹. Permanent removal of the electrodes was reported in 9% of patients². One of the centres reported that out of the 41 patients, 5 required explantation³. We are reporting an 11 years experience with SNM from our centre.

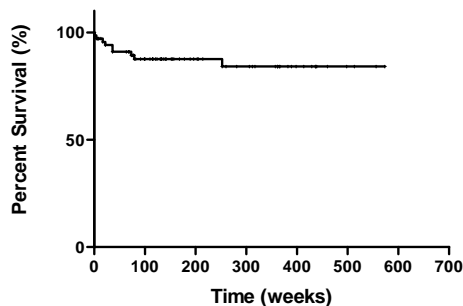
Study design, materials and methods

Retrospective review of the patient's data base was performed. We have reviewed incidence and timing of surgical re-intervention after SNM implant. Seventy consecutive patient implanted between 1994 and 2005 were included in the study. One patient died of Ischemic Heart Disease 9 years after implant and one patient was lost to follow-up 4 years after implant. Indications for implant were; OAB 40%, PBS 43% and LUTS 17% after successful temporary stimulation test. There were 66 women and 4 men in the study. Mean age at implantation was 47 years. Mean follow-up was 4 years.

Results

Overall 40% of patients had surgical re-intervention including explantations. Thirty seven procedures were performed in 28 patients. Explanation rate was 13%, and specifically for OAB 11%, PBS 16% and for LUTS 8%. Eight out of nine explantations were done within first two years. All but one, were removed from women. Overall revision rate was 30%. This includes surgery to revise lead, IPG, extension cord or combination. Twenty eight patient had one intervention, 8 two intervention and one patient three. Surgery related to lead reposition were done on average within 20 months and revision of the IPG on average within 36 months of the initial implantation. Although overall surgical interventions, including explantation, were 40% there were more frequent in the first 5 years (57% of patients) in compare to the last 5 years (29% of patients). We had no infections, no nerve damage and we did not have to replace drained battery.

Survival of the SNM Implant
(9/70)



Interpretation of results

It is rather simple procedure which requires however very careful patient selection and meticulous surgical techniques. Learning curve of the surgical technique might not be very long; however gaining experience in patient evaluation and managing complications is a more lengthy process.

Concluding message

SNM procedure is an important minimally invasive treatment option for patients with OAB, PBS and LUTS who failed conservative treatment.

References

1. J Urol. 2006 Mar; 175(3 Pt 1):835-41.
2. Eur Urol. 2006 Feb; 49(2):366-72.
3. Urology. 2005 Jun;65(6):1114-7

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HUMAN SUBJECTS: This study was approved by the Capital Health Research Ethics Board and followed the Declaration of Helsinki Informed consent was not obtained from the patients.

