

#508: Sacral neuromodulation: standardized electrode placement technique: two-year outcomes, comparing the use of the straight versus curved stylet

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Hypothesis / aims of study

- Sacral neuromodulation (SNM) is an established minimal invasive therapy for functional disorders of the pelvic organs refractory to conservative measures
- Recently, a standardized electrode placement technique was described [1]
- This study presents the follow-up data over 24 months using the standardized electrode placement technique, comparing the use of a curved versus straight stylet

Study design, materials and methods

- Single tertiary center
- Prospective study (August 2013 - June 2015)
- Study population:
 - Inclusion: patients with OAB and NOUR refractory to first-line treatment
 - Exclusion: underlying neurological conditions and pelvic pain symptoms
- Primary outcome:
 - Successful tined lead procedure and intention to treat analysis at 12 and 24 months
 - Success was defined by 50% reduction in relevant parameters noted on a 3-days voiding diary and patient satisfaction



The tip of a lead with curved stylet (upper) and straight stylet (lower) is shown.

Results

Table: outcome

	Straight	Curved	P-value
Number tested	20	35	
Success test phase	13 (65%)	33 (94%)	Chi ² ; p=0.005
Number Implanted	13	33	
Success 12 months	12 (PP:92% / ITT:65%)	33 (PP:100%/ ITT:94%)	Chi ² ; p=0.002
Success 24 months	9 (PP: 69% / ITT: 45%)	32 (PP:97% / ITT: 91%)	Chi ² ; p<0.001

Interpretation of results

- The intention to treat (ITT) results of the straight lead placements are in line with the 2 year FU results of 27%-61% reported by well-designed prospective multicenter trials [2,3, 4, 5] elaborating on sacral neuromodulation outcome
- The ITT results of the curved lead placements are clearly higher
- As the patient characteristics of this study are in line with those previously reported we believe this is related to the standardized implant technique and the curved design of the lead, making small adjustments in lead placement possible

Concluding message

- SNM using the standardized electrode placement technique is an efficacious treatment for OABD, OABW and NOUR
- Furthermore, the use of a curved stylet leads to more successful tined lead procedures and better success rates after 12 and 24 months follow-up when compared to use of the straight stylet

References

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