

# Does The Type Of Anesthesia During Stage 1 Testing For Sacral Neuromodulation For Urge Urinary Incontinence Influence The Outcome?

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## Introduction

- For sacral neuromodulation (SNM, Interstim™), staged implant testing produces the highest rate of progression to device implantation [1]
- Stage 1 lead placement (SNM-I) is typically done in OR under general anesthesia (GA) or monitored anesthesia care (MAC) with the patient receiving IV sedation
  - MAC: allows for both motor and sensory testing (patient can respond to questions)
  - GA: motor testing alone
- Studies suggest successful outcomes with motor testing alone [2,3]
- At our institution we previously performed SNM-I under MAC but now exclusively GA
- We sought to determine if the mode of anesthesia influences the outcome of staged SNM testing by comparing the outcomes (rate of progression to stage 2 implant, SNM-II) of our patients who had MAC vs GA

## Methods

- Retrospective chart review of patients who underwent staged implant SNM testing (SNM-I) for refractory overactive bladder (OAB) with urge incontinence (OAB wet)
- SNM-I was performed in the operating room under general anesthesia (GA group) or monitored anesthesia care (MAC group)
- Clinical variables compared between the groups (sex, age, body mass index [BMI], neurologic diagnosis)
- Outcome of interest: rate of patient progression to stage 2 device implant (SNM-II)
  - Had to experience  $\geq 50\%$  improvement in symptoms during SNM-I based on:
    - Overall subjective impression of improvement (analog scale)
    - Bladder diaries, pad tests
  - Chi square test, T test

## Results

All patients, MAC vs GA			
	MAC	GA	p
n	95	23	
Female	86 (82.6%)	16 (69.6%)	0.01
Mean Age (yrs)	54.7	54.5	0.97
Mean BMI	31.1	32.6	0.48
Any Neuro Diagnosis	35 (36.8%)	15 (65.2%)	0.01
MS	5 (5.3%)	5 (21.7%)	0.01
Stroke	6 (6.3%)	1 (4.3%)	0.83
Parkinson's	3 (3.2%)	0 (0%)	0.39
Progression to SNM-II	67 (71%)	17 (74%)	0.75

Comparison of all GA patients and 23 most recent MAC patients			
	MAC	GA	p
n	23	23	
% Female	19 (82.6%)	16 (69.6%)	0.30
Mean Age (yrs)	51.1	54.5	0.53
Mean BMI	30.5	32.6	0.43
Operative Time (min)	67.2	59.2	0.39
Progression to SNM-II	15 (65%)	17 (74%)	0.52

No difference in rate of progression to SNM-II between groups

## Conclusions

- We found no significant difference in the rate of device implantation between patients undergoing staged implant testing under MAC vs GA
- Lends support to body of evidence that assessment of motor response alone may be adequate for SNM lead placement

## References

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