

BMI Does Not Predict SNM Success in OAB and Voiding Dysfunction Patients, but Age May

Sacral neuromodulation (SNM) is a surgical treatment for overactive bladder and voiding dysfunction, usually delivered in two stages: a trial phase followed by permanent implantation or removal. Many UK centres routinely withhold SNM treatment for patients with high body mass index (BMI), with thresholds commonly set at 35 or 40. **We hypothesized that BMI and age would not significantly influence trial success or complications.**

Study design:



Retrospective analysis of 99 consecutive trial SNM procedures performed between 2016 and 2023. BMI $31.62 \pm 7.72 \text{ kg/m}^2$ and age 44.92 ± 17.28 years. 90 F, 9 M.



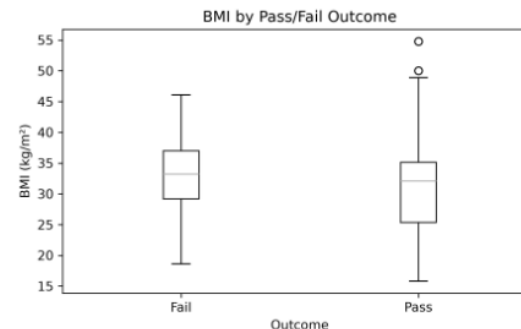
Success is 50% reduction in bothersome symptoms, leading to permanent neurostimulator implantation.



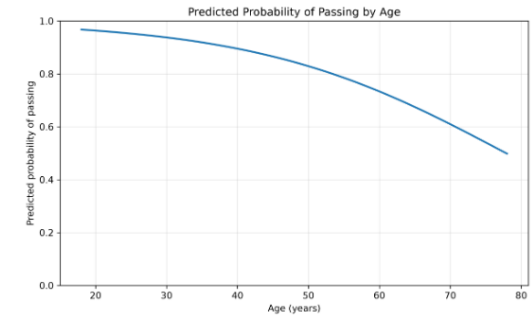
Complications are events (infection, pain etc) resulting in device revision, explanation, or switched off.

Results:

- **BMI (n = 99) was not significantly associated with trial success** (Binary logistic regression - OR = 0.99, p = 0.821).



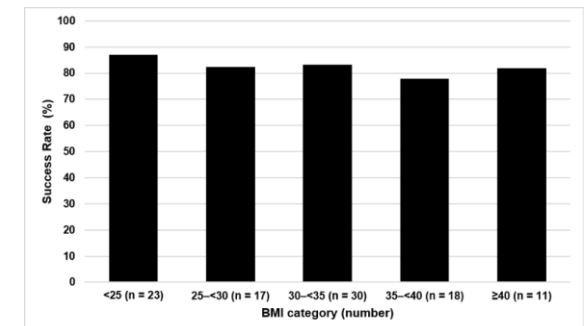
- **Age (n = 99) was significantly associated with trial success** (Binary logistic regression - OR = 0.96, p = 0.002), Younger patients are more successful.



- Only five **trial complications**, did not appear to be influenced by BMI or age.
- 48 complications in 80 stage 2 implants. **Higher BMI was not associated with increased likelihood of long-term complication** (Binary logistic regression – OR = 0.94. p = 0.04) . **Age was not associated with incidence of long-term complications.**

Take home message:

Use of BMI as an arbitrary selection criterion for SNM does not appear to be justified in this retrospective analysis. The sample size was limited. Further work could assess BMI/age affect on neurostimulator battery life, and direct symptom resolution.



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