

Peripheral Nerve Stimulation of the Phrenic Nerve for Intractable Hiccups: A Novel Use Case Report



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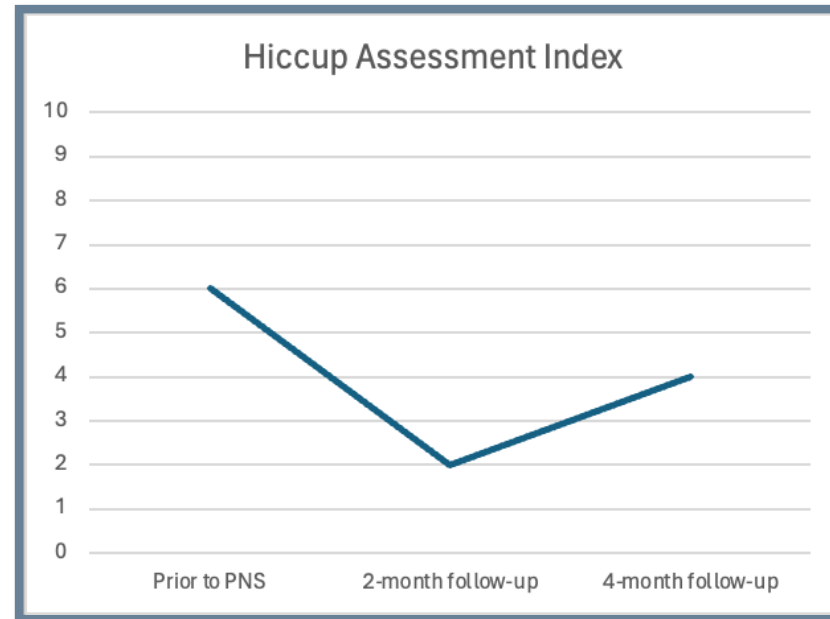
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INTRODUCTION

- Intractable hiccups cause significant morbidity
- Hiccup management frequently presents a significant clinical challenge, requiring innovative approaches beyond conventional treatments.
- Emerging studies have indicated the moderate efficacy interventional techniques.
- This case report details the novel use of phrenic nerve peripheral neuromodulation in the management of a patient with intractable hiccups, highlighting its relevance to both clinical practice and the scientific community due to the condition's rarity and the procedure's pioneering nature.

METHODS

- 73-year-old African American male presented with intractable hiccups
- Hindered his ability to eat, severely impaired his speech, and disrupted his sleep, allowing only 2-3 hours of rest at a time.
- Conservative therapy, phrenic nerve and stellate ganglion blocks, and external vagal nerve stimulation were ineffective.
- He underwent bilateral phrenic nerve ultrasound-guided implantation of a Sprint peripheral nerve stimulator (PNS).
- The Hiccup Assessment Instrument (HAI), which subjectively measures hiccup severity, initially scored the patient's hiccups as a moderate 6 out of 10.



At 2 months:

4 point VAS
reduction
67% pain reduction

At 4 months:

2 point VAS
reduction
33% pain reduction

RESULTS

- Following PNS implantation and removal, the patient's HAI score was a "mild" 2 out of 10.
- The decrement was clinically meaningful to the patient. He reported enhanced functionality and quality of life including the ability to sing at church and have extended conversations with family members.
- At four-months, his HAI was 4 out of 10.

CONCLUSION

- This report showcases, to our knowledge, a novel use for peripheral nerve stimulation for the management of intractable hiccups.
- Further investigation is needed to explore long-term outcomes and applicability.

REFERENCES

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