

Background

The treatment of children and adolescents with migraine proposes unique challenges in that many or most FDA approved treatments for headaches are off-label in children. Also, many patients and their parents would like to refrain from daily preventative medications and/or oral abortive medications if possible. In addition, procedures involving injections pose a concern to many children. The sphenopalatine ganglion (SPG) block provides a safe, quick, fairly non-invasive mode of acutely and preventatively treating patients with migraine. We believe it can replace, or be an adjunct to other preventative migraine treatments for children.

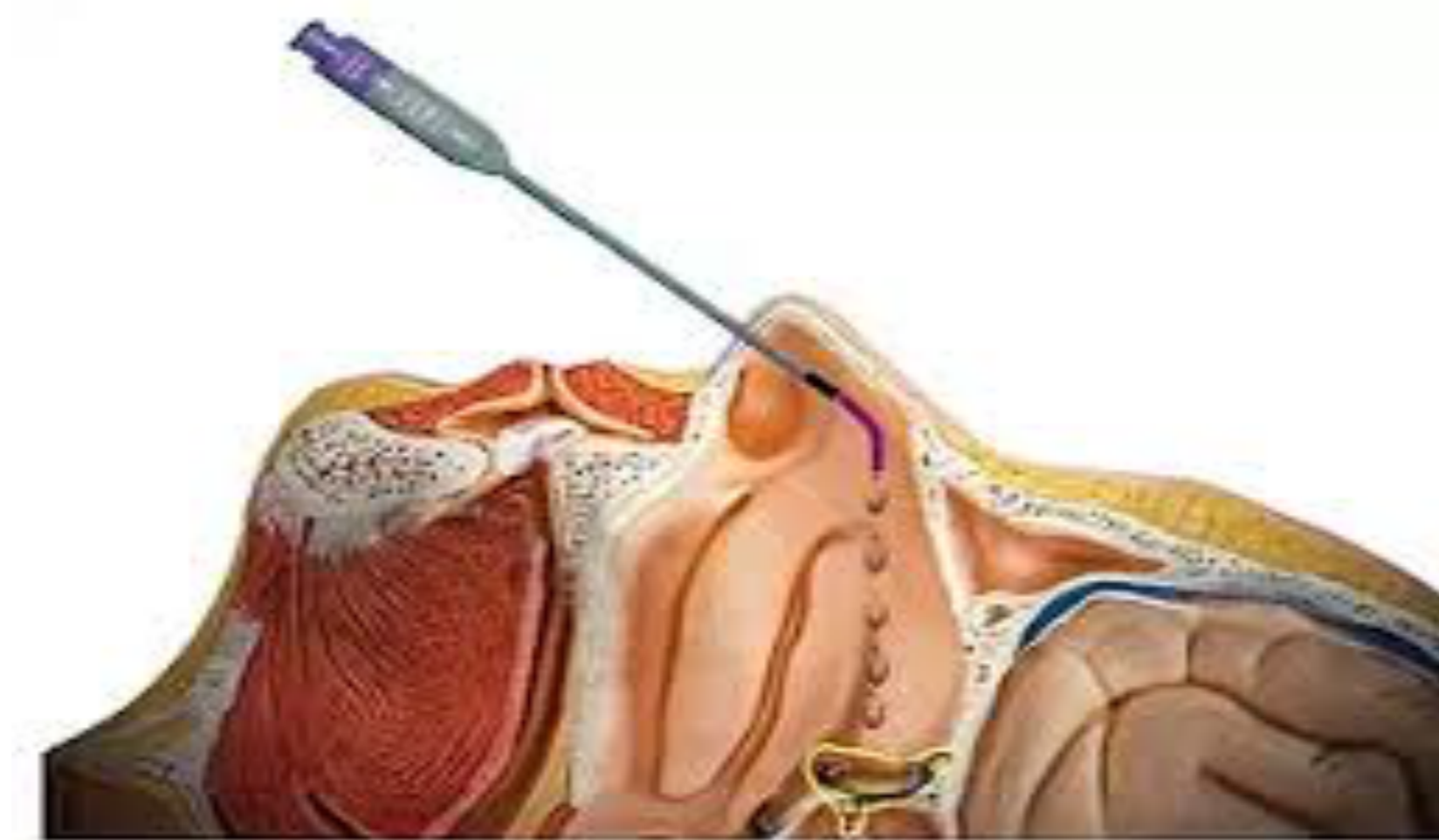
Objective

To determine the efficacy, tolerability of SPG blocks, and reduction in disability in children with migraine

Methods

- Retrospective chart review over 2 years in a large tertiary hospital clinical headache practice
- Inclusion criteria: children up to age 18 years with episodic or chronic migraine, who have received at least 2 SPG blocks and completed Pediatric Migraine Disability (PedMIDAS) questionnaires at visits
- PedMIDAS grading scale: >50=severe disability, 31-50=moderate, 11-30=mild, 0-10 = little to no disability
- Safety and tolerability assessed via patient and/or caregiver report of adverse events at each visit

Demographics: 4 males, 35 females
Mean age = 14.46 years; Range = 8 years to 18 years
Efficacy evaluated by comparing first and last PedMIDAS scores, need for preventative headache medication, and reduction (if any) in chronicity to episodic migraine
Sample size: = 39



Patients received 1.5mL of 2% lidocaine in each nostril using the SphenoCath device. Pain numeric scale and facial temperature at 0 and 10 minutes were assessed.

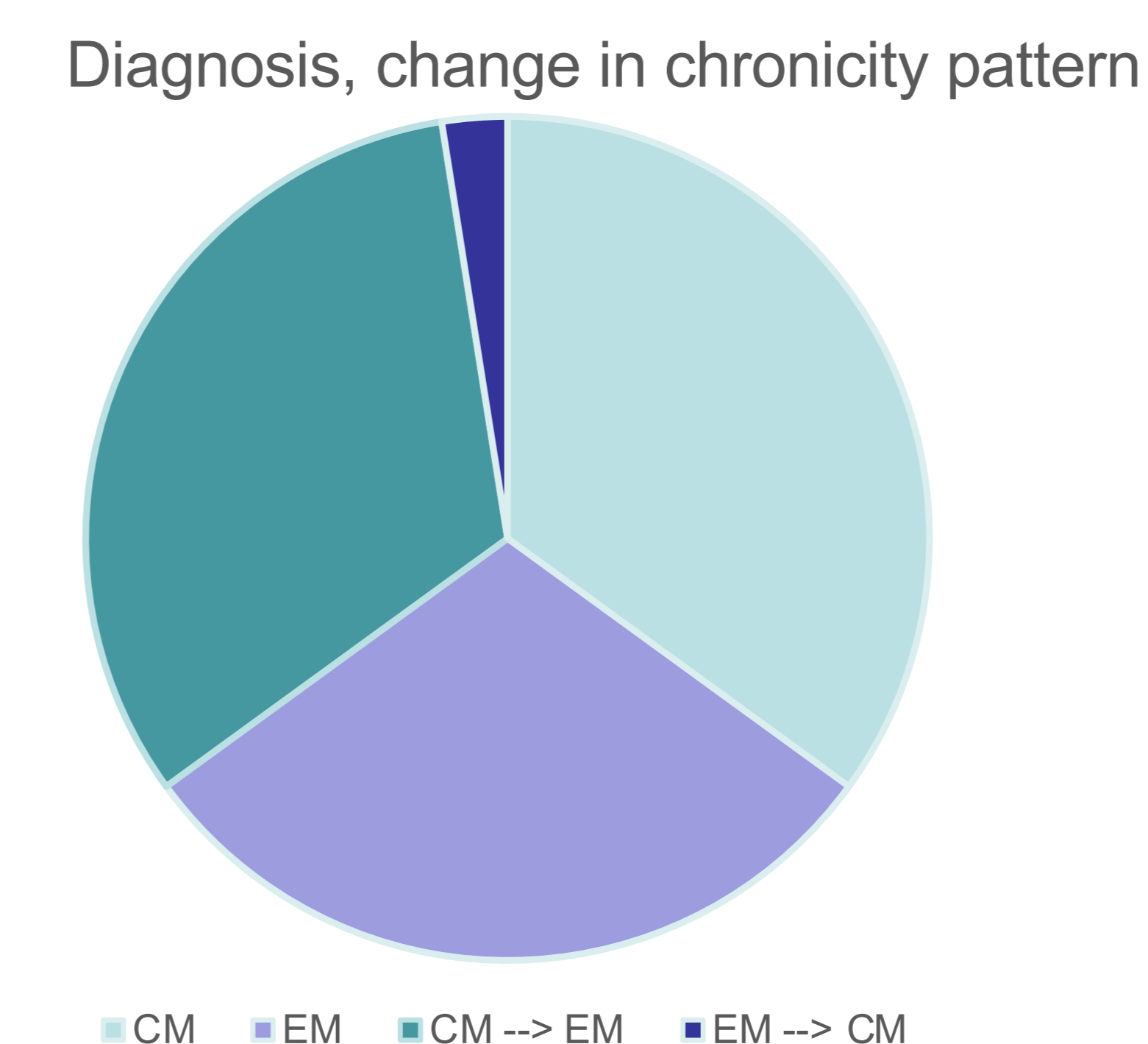
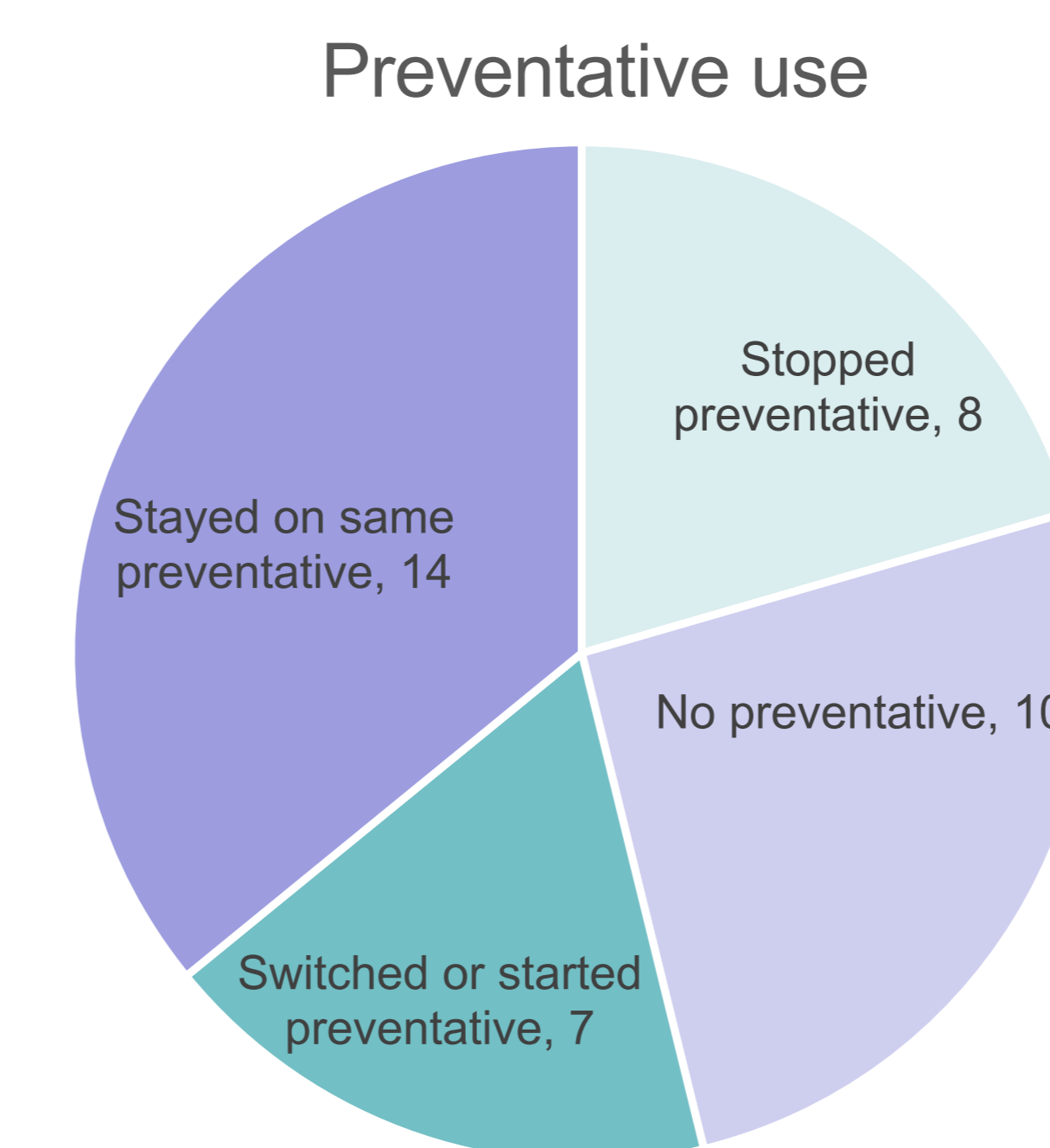
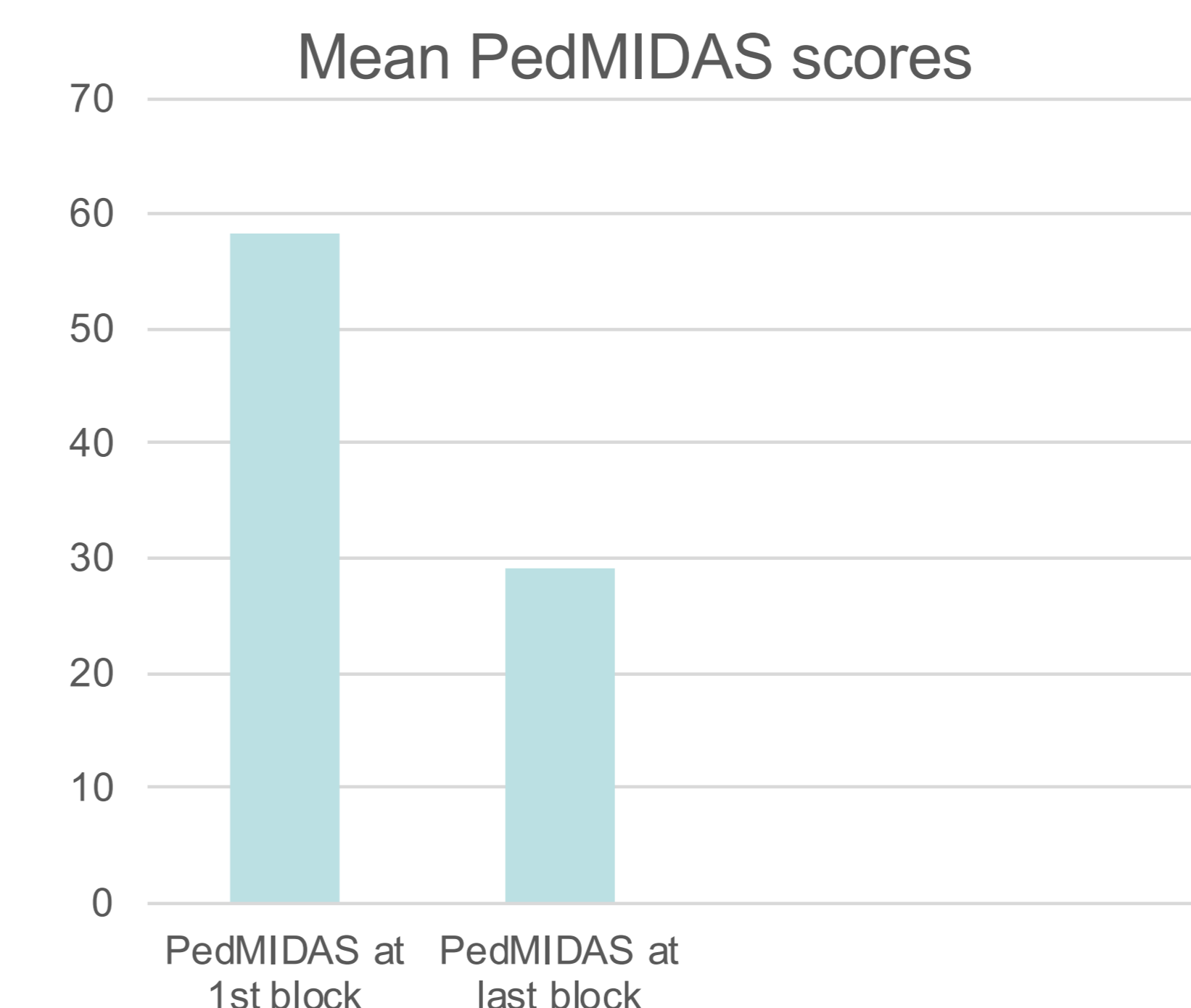
Results

Efficacy
Children showed a mean reduction of 28.74 in PedsMIDAS scores with receiving 2 or more SPG blocks.
Initial mean PedsMIDAS score: 58.23 (high=180, low=1)
Last mean PedsMIDAS score: 29.23 (high=90, low=0)
8 patients stopped use of preventative med
10 patients were not on a preventative at start and finish
7 patients went on prevention or switched to another
14 patients stayed on their preventative
27 patients initially diagnosed with chronic migraine, 12 patients with episodic migraine

13 patients diagnosed with CM decreased to EM. 1 patient developed CM from EM

Tolerability

- No major adverse effects reported, with bad taste and temporary numbness of throat typically reported



Discussion

- This pilot reveals potential benefits of SPG blocks for children and adolescents with chronic migraine.
- Further investigation and research is warranted to assess if SPG blocks are a reasonable alternative to preventative and/or abortive medication use
- In our practice, patients receive SPG blocks every 2-3 months on average
- Future considerations: time between procedures, potential decrease in ER visits and/or hospitalizations, need for abortive medication use, reduction in medication overuse headache

Limitations

- Small sample size
- Subjective reports weaken validity
- Concurrent treatments may obscure source of adverse effects and/or efficacy
- Patients (or their visits) excluded if PedMIDAS was not completed
- Cohort consists of some patients with medically intractable migraine
- Barriers to receiving treatment exist (insurance coverage, access, scheduling)
- External factors (stress, trauma, etc.) not evaluated
- Further studies necessary

References

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