Efficacy of the Sphenopalatine Ganglion Block for the Treatment of Migraine Headaches:
An SRNA Quality Improvement Project

Rebecca Woods, BSN, RN, SRNA
Union University
Faculty Advisor : Dr. Jordan Palmer DNP, CRNA, APN
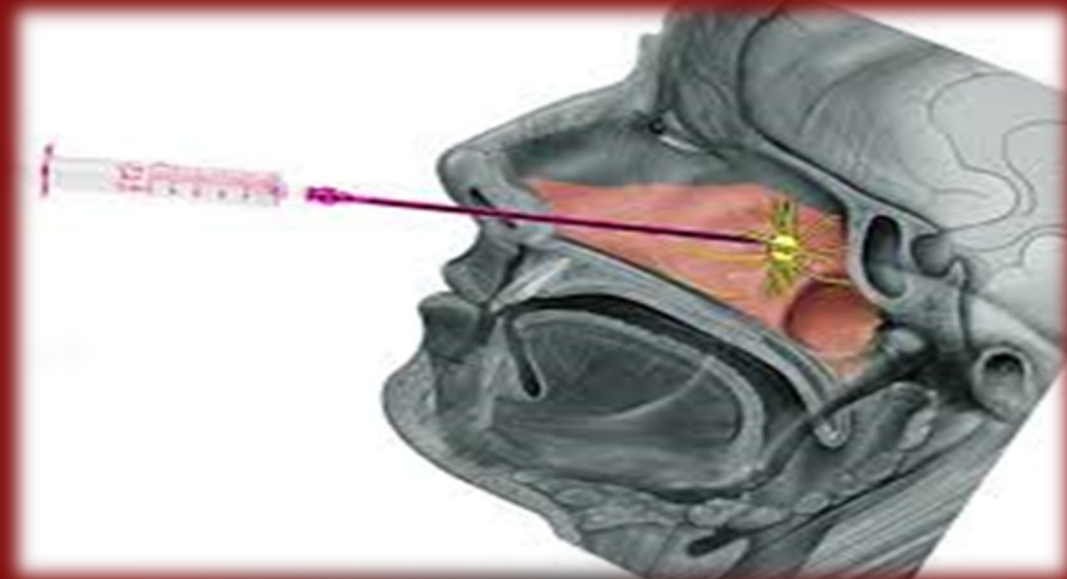
Background

- A migraine is a primary headache disorder that can be significantly burdensome to numerous individuals.
- Migraine is the 6th most disabling illness in the world.
- Migraine sufferers tend to experience high costs of medical services, too little support, and limited access to quality care

Objective

- Anesthesia providers understanding of the SPG blockade will be evaluated after reviewing an evidence-based practice tool.
- Development of the tool is based on an integrative research review (IRR) to examine the current research and assess the effects of local anesthetic application to the SPG in the treatment of headaches.

Design

An integrative research review (IRR) was performed for the creation of evidence-based education tool. IRB exemption was obtained. Pre- and post-test surveys were constructed for learners understanding, then their responses were evaluated.

Summary of Recommendations of IRR

- SPG blockade should be used for migraine pain relief
- Continued education on the SPG block for providers will encourage provider usage
- This treatment promotes better patient outcomes

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest score before education module	85.636	11	12.15132	3.66376
	Posttest score after education module	100.00	11	.00000	.00000

DNP Implementation

- Current student nurse anesthetists (SRNAs) in the class of 2021 at Union University.
- Participants were consented and completed a 5-question multiple choice pre-test on the SBG block.
- Educated via a visual and audio PowerPoint presentation.
- The SRNAs took a 5-question multiple choice post-test. The results were thoroughly assessed and evaluated.

Results

The paired T-test revealed a p-value of < 0.05, which means that the null hypothesis is rejected. Thus, there is a significant difference in the SRNAs scores on the pre- and post-test when training was provided. The data clearly confirms that the SRNAs scores improved after being educated.

Conclusion

Based on the collective research studies within this IRR, the SPG blockade is a plausible pain management intervention for migraine headache sufferers. For reasons not limited to its low side effect profile, noninvasive nature, and cost effectiveness, the efficacy of SPG block is an admirable option for the treatment of headaches.

References available upon request