Pain is Gone with Just A Few Lidocaine Drops

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Background and Aims

• The sphenopalatine ganglion block (SPGB) is a simple and valuable technique that was discovered over a century ago, but few anesthesiology providers are familiar with this block.

• Over the years, multiple companies have created intranasal devices for the administration of the SPG block through the transnasal approach.

• However, these devices can be expensive and are not readily available at all institutions.

• As a quality improvement project, we have created our own device from supplies that are readily available in every medical facility to safely, effectively, and inexpensively perform the SPGB.

Methods

• The SPGB applicator was created from hollow cotton swabs, intravenous extension tubing with a stop cock, 3-ml syringes, 5% lidocaine ointment, and 4% lidocaine topical.

• We positioned patients in the supine position with the patient’s neck extended (“chin-up position”).

• Hemodynamic monitors consisting of non-invasive blood pressure, pulse oximetry, and EKG were applied throughout the procedure.

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• We suggest that this technique be considered more often due to its simplicity, safety, low cost, and effectiveness.

Methods Continued

• Lidocaine 4% was dripped drop by drop through the applicators into each nostril until the patients felt the medication in the back of the throat.

• Typically, 0.5mL to 3mL of the medication was required for each nostril.

• Patients remained in the position described above for 15-minutes.

• The SPGB has an interesting phenomenon where even after the procedure was repeated in a row, up to two more times.

• During the treatment, patients had the option to cover their eyes with a small towel for comfort.

• If the symptoms were not sufficiently relieved, the procedure was repeated.

• After the procedure, the patients were monitored for ten more minutes.

Results

• Since the start of our project, patients with chronic pain of various etiologies, resistant to numerous treatments, received our variation of the SPGB at St. Elizabeth’s Pain Management Center for the first time. After just a single treatment session:

• 10 patients with chronic headaches left our clinic headache free!

• 2 patients with CRPS of the lower extremity had significant pain reduction

• 1 patient with excruciating left shoulder pain after an open pancreaticoduodenectomy had 100% pain relief

• Furthermore, for those that had neck/shoulder pain or tension, they had decrease in pain in their neck/shoulder and improved range of motion of the neck.

• After the treatment, one of the patients was in disbelief because she felt that for the first time in years, she stopped having blurry vision!

• Patients experienced no severe adverse effects from this treatment besides a mild bitter taste that resolved within several minutes and one patient had nausea that also resolved on its own within several minutes.

• We will continue to follow our patients in clinic and repeat the treatment if necessary.

Conclusions

• The SPGB has an interesting phenomenon where even after the temporary effects of lidocaine wear off, some types of pain completely resolved and never came back after this treatment.

• This topic would benefit from further investigation.

• Furthermore, this is a benign block, with minimal risks.

• We suggest that this technique to be considered more often due to its simplicity, safety, low cost, and effectiveness.

References

1. Slater D. The anatomical and clinical relations of the sphenopalatine (Meckel’s) ganglion to the nose and its accessory sinuses. All Publ. Printing Company; 1909.


