

## ***Stellate Ganglion Block for Refractory Migraine and New Daily Persistent Headache: Case Report***

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### **INTRODUCTION**

Chronic migraine is defined as headaches  $\geq 15$  days/month for  $\geq 3$  months with  $\geq 8$  headaches having migrainous features.

### **OBJECTIVES**

We present a unique case of refractory chronic migraine secondary to COVID benefiting from stellate ganglion block (SGB).

### **MATERIALS AND METHODS**

- A 34-year-old male with history of chronic migraine, new daily persistent headache (NDPH) presented with worsening headaches since contracting COVID-19
- He has had headaches since childhood
- Severe daily headaches started at age 24, no known precipitating event
- In 2018, due to continuous headache for 3.5 years, he underwent lidocaine infusion which was curative
- Headaches returned in December 2021 after contracting COVID-19
- Lidocaine and dihydroergotamine (DHE) infusions provided no relief the second time.
- Pain is daily, severe, bilateral frontal/temples, photophobia/phonophobia, with diminished functioning. Occasionally, he reported frontal/temporal stabbing lasting seconds-2 minutes. Working diagnosis was chronic migraines exacerbation from COVID-19.

# **Stellate Ganglion Block provided a significantly beneficial response for chronic migraine and NDPH**



### **MATERIALS AND METHODS**

- He failed antiepileptics, anti-depressants, antihypertensives, CGRP antagonists (fremanezumab, galcanezumab, eptinezumab), memantine, indomethacin, gabapentin, tramadol, onabotulinumtoxin A, oxycodone/paracetamol, sumatriptan, zolmitriptan, dihydroergotamine, compazine/nabumetone, ketorolac, lasmiditan, haloperidol, metoclopramide, tizanidine, ketamine infusion
- He failed occipital nerve blocks and cervical medial branch blocks
- SGB was first performed January 2024, and significantly improved symptoms within 1 week
- It was repeated weekly, alternating right and left side, with significant relief, improved cognition, and decreased pain medication requirements. Each SGB improved headaches for 1-2 weeks

### **RESULTS**

- This case demonstrates refractory chronic migraine secondary to COVID necessitating trial and error of treatments, improving with SGB
- The stellate ganglion can cause sympathetic overdrive and blockage reduces activity
- Recent studies demonstrate that SGB for chronic migraine and long-COVID symptoms is a safe and effective treatment modality
- Limited literature exists for patients suffering from very refractory chronic migraines, NDPH, and long-COVID.