

# **Stellate Ganglion Block for PTSD**

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#### INTRODUCTION

- 50% of patients with post traumatic stress experience symptoms longer than 3 months.
- The use of SGBs in the treatment of PTSD is gaining popularity, but has yet to achieve widespread adoption despite being used to treat psychiatric conditions since 1947<sup>1</sup>.
- Efficacy of standard treatment of post-traumatic stress is predicated on processing trauma which exacerbates symptoms often leading to avoidance or disengagement.
- High prevalence of PTSD among AD, which is twice that of civilians<sup>3</sup>.
- SGB's offer rapid relief, which is crucial during combat, and can last up to 3 months.
- Evidence points to epigenetic changes in brain-derived neurotrophic factor as the mechanism<sup>7</sup>.



Patient 1: 44 F receiving SGBs since Aug 2020 with 4-6 week benefit. Refractory to pharmacotherapy and psychotherapy. Pre-procedure PCL-5: 54. Post-procedure (2 weeks): 48.



injected at the C-6 level. Confirmed with spread of contrast dye.



Patient 2: 46 M post-TBI patient who received SGB for PTSD. Pre-procedure PCL-5: 49. Post-procedure (~8 weeks): 47. Reported no significant change but able to engage in therapy he otherwise wouldn't have.

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## **CLINICAL PRESENTATION**





Patient 3: 47 M PTSD since June 2020. Refractory to psychotherapy and zoloft leading to removal from job position due to decreased work performance. Pre-procedure PCL-5: 51. Post-procedure (~3 weeks): 42.

#### **CONCLUSIONS**

- PTSD is a complex disorder that is difficult to treat and can lead to terminal consequences.
- Data regarding short-term benefit of SGBs is growing and overwhelmingly positive when used appropriately as an adjunct.
- Considering the chronic nature of PTSD, SGBs may be an effective supplemental therapy to the standard of care.

### **REFERENCES**

 Karnosh LJ, Gardner WJ. Cleve Clin Q. July 1947, doi: 10.3949/ccjm.14.3.133. VA/DoD Clinical Practice Guideline for the Mgmt of PTSD and Acute Stress Disorder (**3**) Hines LA et al. Can J Psychiatry. 2014, doi:10.1177/070674371405900903 (4) Hanling SR et al. Reg Anesth Pain Med. 2016, doi:10.1097/AAP.0000000000000402 (5) Lipov, J Trauma Treat 2014, S4DOI:10.4172/2167-1222.S4-0 (6) Olmsted et al. AMA Psychiatry. 2020, doi:10.1001/jamapsychiatry.2019.3474 (7) Lipov et al. J Mol Neurosci. 2017, doi: 10.1007/s12031-017-0911-3.