Stellate Ganglion Block (SGB) and Posttraumatic Stress Disorder (PTSD)

What is Stellate Ganglion Block?

Stellate ganglion block (SGB) is an established procedure used by anesthesiologists and anesthesia providers to relieve pain. Emerging research suggests that SGB may also help a subset of Veterans with posttraumatic stress disorder (PTSD) who have not found relief from traditional evidence-based treatments such as therapy and medication.

SGB has been used for decades to treat complex pain syndromes that affect the head, face, neck and arms. During the procedure, a doctor or certified health care provider uses x-ray or ultrasound imaging to guide a needle into a bundle of nerves located near the base of the neck. The provider then injects a local anesthetic into the nerve tissue like a dentist delivers numbing medicine before a dental procedure. The anesthetic lasts only a few hours, but the effects of the procedure can last for several weeks or longer in some cases.

How can SGB be used to treat PTSD?

There is growing evidence that SGB may alleviate certain PTSD symptoms such as hyperarousal, exaggerated startle responses and anxiety. Researchers are not sure exactly how SGB works, but it appears to calm an exaggerated “flight or fight” survival reflex in people living with PTSD, which can become triggered by various events that don’t warrant it. Veterans who received SGB for other health conditions like nerve pain report positive effects for their PTSD symptoms including reduced anxiety and hypervigilance.

SGB has limited side effects and is relatively safe when administered by a trained clinician. After the procedure, some Veterans who are treated with SGB for PTSD symptoms find more benefit from traditional treatments like talk therapy because of a reduction in anxiety and other symptoms.

SGB is not a cure and the treatment does not work for everyone. However, it is a promising option for Veterans with PTSD symptoms, which have not responded to other evidence-based treatments.
Where can a Veteran receive SBG for PTSD treatment?

VA Long Beach Healthcare System in California and the VA Center for Compassionate Care Innovation (CCI) are leading an effort to offer SGB to a subset of Veterans who have not experienced relief from traditional treatments. SGB is also available at other VA medical centers outside of the CCI-led clinical demonstration.

What are the indications that SGB may be an option for a Veteran?

SGB is indicated for Veterans who:

- Have a current PTSD diagnosis:
  - Including prominent hyperarousal or hypervigilance symptoms
  - And continue to experience significant symptoms of PTSD
- Can make medical decisions at the time of treatment
- Are under care by a VA mental health (MH) provider:
  - May include a clinician that Veteran previously worked with or
  - Primary care mental health integration (PC-MHI) team or other patient aligned care team (PACT) member with mental health expertise
- Have had at least one adequate trial of evidence-based treatment, such as an antidepressant trial, prolonged exposure therapy, cognitive processing therapy or eye movement desensitization and reprocessing therapy and:
  - Discontinued treatment due to intolerability
  - Did not experience meaningful symptom improvement after treatment
- Are not enrolled in an active PTSD research protocol

Where can I find more information about SBG?

- Watch a VA video about SGB.
- Watch a video from The Wall Street Journal about U.S. Army research into SGB treatments.
- Visit the CCI webpage at https://www.va.gov/healthpartnerships/