

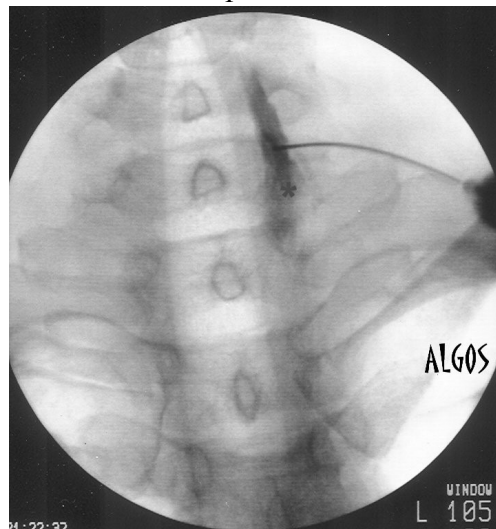
## **STELLATE GANGLION BLOCK**

**NOTE: THIS PROCEDURE MUST BE PERFORMED UNDER X-RAY FLUOROSCOPIC GUIDANCE BY MD OR DO PHYSICIANS ONLY.**

**WHAT IS THE STELLATE GANGLION?** *The sympathetic nervous system is a primitive alternative nervous system that exists in our bodies and usually is outside our conscious control. It controls the amount of blood going through the arteries, the heart rate, breathing rate, etc. The stellate ganglion is a main switching station for the sympathetic nervous system in the neck and controls the blood flow and certain pain sensors in the face, neck, arm, hand, and upper chest. In some diseases, the nerve signals going through this switching station are overactive and can be interrupted by injection of a local anesthetic into this ganglion.*

**FOR WHAT CONDITIONS IS THE STELLATE GANGLION BLOCK (SGB) USED?** *Headaches, recurring facial pain, reflex sympathetic dystrophy, some types of cancer pain, and sympathetically mediated diseases, excessive sweating. The injections may be used as a diagnostic injection or in a series as therapeutic injections. However, if more than 3 injections are needed, it is prudent to consider other technologies such as spinal cord stimulation as a permanent alternative.*

**HOW IS THE INJECTION PERFORMED?** *The injection is always performed under x-ray fluoroscopic guidance, usually with local anesthesia given into the skin over the site of the injection. The use of x-ray fluoroscopy according to ISIS should be used for all spinal injections including this injection. After skin preparation and placement of local anesthesia in the skin, a small needle is inserted at the base of the neck, and advanced to the C7 vertebrae. Injection of iodinated contrast shows the needle tip is not in a blood*



*vessel and therefore local anesthesia can safely be injected. Usually bupivacaine (marcaine) is injected and the local anesthetic will track down the sympathetic nerves to the stellate ganglion that lies just below. Onset of pain relief is nearly immediate if the sympathetic nervous system is carrying the painful signals through this ganglion. You will continue to*

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*assess the degree of pain relief over the next several hours. A series of these blocks is a reasonable choice to desensitize the nervous system, but if more than 3 blocks are used in a 3 month time period, other alternatives need to be considered.*

**DO THE INJECTIONS HURT?** *Typically the injection hurts very little even without sedation.*

**IF THE INJECTION WORKS, CAN IT BE REPEATED?** *Yes, it is possible to repeat the injection two or three times if there is significant relief of pain or other desired symptom relief with the first injection. If there is no relief from the first injection, there is no reason for repeated injections in the same location. The sympathetic nervous system may be interrupted at a lower level by a T2 sympathetic block if indicated if the stellate ganglion block does not produce the desired effect.*

**SPECIAL INSTRUCTIONS:** *Stop Plavix 7 days before the procedure, Aspirin 5 days before, Stop Coumadin and Warfarin 5 days before the procedure – (and arrange for Lovenox Bridging with your primary if indicated). Stop Ticlid (ticlopidine) 14 days before the procedure.*

**RISKS:** Bleeding, infection, abscess, nerve injury, brief seizures if the medications are injected into the artery, stroke, brief increase in pain, pneumothorax or chylothorax (lung problems) are all rare but can occur.

**AFTER THE PROCEDURE:** *You will be in our clinic for about 20-30minutes after the procedure.*

**DISCHARGE INSTRUCTIONS:**

- **Activity:** Resume normal activity over the next day.
- **Diet:** Resume normal diet
- **Medications:** Resume normal medications unless otherwise instructed.
- **Dressing:** You may have a small bandaid or bandaids placed over the injection site.

This can be removed the next day

• **Discomfort at the Injection Site:** Apply ice wrapped in a washcloth for short periods of time (20 minutes per hour) during the first 24 hours, then apply low to medium heat

• **Side Effects: Horners syndrome (drooping and bloodshot eye on one side and blurred vision) is a normal and expected side effect of the procedure.** Hoarseness is not an uncommon side effect that lasts usually only a few hours. If you experience new onset severe neck pain during the first several days after the injection or develop a fever of over 101.5 degrees or shortness of breath or severe dizziness, call our office. If you have difficulty swallowing, call our office, **or if it is after hours go to an Emergency Department or Urgent Care, and explain the procedure you have had and the symptoms.**