



Stellate Ganglion Injection

Introduction

Injection therapy can be used both for the diagnosis and treatment of painful conditions, such as pain in the extremity, face, or head. Pain can arise from four structures within the musculoskeletal systems. These include the nerves, muscles, ligaments, and joints. Many patients referred to the pain clinic have undiagnosed pain. By injecting these structures in a very systematic fashion, the origin or the pain can frequently be determined.

What is a Stellate Injection?

A Stellate Injection is the injection of local anesthetics and medications to reduce pain into a collection of nerve cells in the neck called the Stellate Ganglion. The Stellate Ganglion sits on top of the vertebral column separated from the spinal cord by a wall of bone. Injecting local anesthetics into this ganglion can temporarily put it to sleep for hours or days.

Why is it given?

A Stellate Ganglion injection is given for relief of pain in the face, head or arm, that results from a syndrome called reflex sympathetic dystrophy [RSD] or chronic regional pain syndrome [CRPS]. The nervous system can be viewed as a complex computer. After an injury, the nervous system signals pain. However, after the injury heals, the nervous system is supposed to forget the pain has ever occurred and we are supposed to feel good. However, in some patients the nervous system remembers the pain long after the injury has resolved.

If you have a computer or calculator at home, you know if you put the wrong number into it, one way of getting rid of the number is to merely turn the computer or calculator off. When you restart the computer or calculator, the memory has been erased and the screen is clean, so to speak. Similarly, we can erase the memory of chronic pain in the nervous systems by temporarily turning it off. This is what the doctor does when he/she does a Stellate Ganglion injection. By temporarily turning the Stellate Ganglion off with local anesthetics, that portion of the nervous system forgets that the injury took place and the chronic pain can then be resolved.

However, in order to achieve satisfactory relief, generally a series of Stellate Ganglion Injections are required, usually anywhere from five to ten.



How is it done?

Stellate Ganglion injections can be given in two ways. They can be administered with merely a local anesthetic or they can also be given with conscious sedation and local anesthetic. A small injection is made with a local anesthetic in the neck to numb the skin. After the skin is numb, a needle is placed through that area to reach the nervous system. If the patients are nervous about injections, then conscious sedation can be provided. Conscious sedation involves giving Versed, which is a short-acting Valium-type drug. This drug can relieve anxiety and pain associated with the injection. The decision to have conscious sedation varies from patient to patient. Regardless, if you are given conscious sedation, do not drive for at least 4 hours after the procedure.

Possible Complications.

Millions of Stellate Ganglion injections have been administered over the years in the United States for treatment of conditions such as RSD. Complication rates are very low. Slight swelling and bruising in the neck may occur where the injection is given. Approximately ten percent of the patients will have pain complaints at the sight of the injection for twenty-four to forty-eight hours. Occasionally, there may be difficulty swallowing for three to four hours because the local anesthetic affects in the neck paralyze the vocal cords. Therefore, we recommend you do not drink anything for at least four hours after your injection.

What can I expect after the Injection?

You may have a small bruise in the neck after the injection. However, the effects of the local anesthetic injected into the nerve may eliminate those symptoms. In addition, you may experience reduced pain in the arm, face, or head, depending on the area being treating. For therapy, Stellates are usually given as a sequence of five to ten injections sometimes as often as every other day. Following the sequence of these injections, we hope to see resolution of the RSD.

When can I resume normal activity?

You may resume normal activities the day after your procedure. It may be requested you avoid any strenuous physical activities until the next morning. This allows the local anesthetic to wear off so you do not injure yourself without knowing it. Also, do not eat or drink anything for four hours after the injection. If you have a sedentary job and receive no sedation, you may go back to work the day of the injection. If you have concerns about what to do over the next 24-48 hours after your clinic visit, please ask the nurse for clarification.