Stellate ganglion block

The stellate ganglion is a little nodule of specialised nerve cells in the middle-lower part of the neck/throat, to the side and a little below the Adams apple.

The nerves in the ganglion contribute to unconscious central nervous system control of e.g. blood flow, sweating, pupil function, heart rate etc. They can play a role in maintaining pain of burning character or hypersensitivity in the corresponding side of the upper body (head, face, chest, arm, upper back) in some pain conditions such as Chronic Regional Pain Syndrome (CRPS), nerve injuries and others.

Numbing the stellate ganglion with a targeted injection can reduce or stop these types of pain and hypersensitivity (or reduce intense sweating) for a while.

This injection is done as a Day Case under local anaesthetic in an operating theatre. It is quick, usually taking about 10-20 minutes. A drip will be sited in your hand (on the pain-free side) and you will lie on your back with a slightly extended neck. After local numbing of skin a needle will be targeted either by palpation or ultrasound (a probe with a bit of jelly). During the injection you may feel a sensation in your neck, shoulder or shoulder blade or sometimes arm – which is normal and short-lived.

After the procedure you will spend 15-30 minutes in recovery for monitoring and staff will make sure that you can safely swallow fluids to prevent later choking when eating and drinking. A lumpy feeling in the neck/throat for several hours or a day is quite common and normal after this procedure. Because of temporary change to your pupil function and one-sided vision blurring you mustn’t drive afterwards for the rest of the day.

Even if successful, a stellate block will not lasting improve your pain. While 70-80% of these injections are resulting in good pain relief (>50% better), 65% of our patients have ongoing relief after 4 and only 15% after 8 weeks. Future options are limited repeat injections either pre-planned as a series or ad-hoc as needed, but this is not without problems and should be discussed carefully with your pain specialist.

Sometimes, a pulsed RF lesioning injection results in a longer effect. Alternatively, a surgical procedure (thoracoscopic sympathectomy) can be considered to permanently remove some of the nerves at a slightly lower level. This would have to be done in a mainland hospital.

Please do not expect stellate blocks to cure your pain lastingly or come to rely on their effect too much. They can be a useful part of comprehensive treatment together with specific medicines, physical and psychological treatments and improved self-management. You need to think ahead prior to your procedure about what you wish to change, such as any physical activities limited by your pain, going out more to meet friends or relatives, travelling, returning to work as some examples. Being better for a while can also help coping, recharging your life batteries, and enable other treatment forms such as Physiotherapy to be more effective and less painful.
If you are noticeably better after your procedure it is usually useful to reduce or even wean off some pain killers while the effect lasts, with an option to re-start if and when the pain returns. Particularly opioids* and anti-inflammatories** should be reduced/weaned off.

*Ttramadol, Morphine (Oramorph, MST, Zomorph), Codeine, Dihydrocodeine, Buprenorphine or Fentanyl patches, Oxycodone and some others

**Ibuprofen, Diclofenac, Naproxen, Celecoxib, Etoricoxib, Meloxicam and some others