Lumbar Sympathetic Block 腰交感神經節阻滯

Introduction

The nerves that control the amount of blood flow to the feet and lower part of the legs pass along the front of the lumbar vertebral column and are called the sympathetic nerves. Sometimes, sympathetic nerves may also be involved in the mechanism of neuropathic pain. Lumbar sympathetic block is used to treat lower limb complex regional pain syndrome or conditions due to blood vessels constriction and inadequate blood supply to the lower limbs that result in pain, skin ulceration and gangrene, e.g. peripheral vascular disease or just lumbar sympathetic block is used to treat lower limb CRPS and PVD.

How does Lumbar Sympathetic Block work?

Lumbar sympathetic block is a procedure that removes the function of the sympathetic nerves and increases blood flow to the affected area. The block also interrupts the transmission of pain signals through this pathway.

1. This may be achieved either by anaesthetising with local anaesthetic or destroying the nerve with chemical (point 8 mention neurolytic agent, should be consistent).
2. The effect after injecting local anaesthetic is usually brief and last for several hours.
3. The effect after destroying may last several weeks to several months.

The procedure may not produce the desired effect if the blood vessels are already in bad shape or occluded.

The Procedure

1. You may be asked to fast for a period of time before the procedure.
2. The procedure is usually performed under local anaesthesia. Sometimes a sedative agent may be administered.
3. An intravenous cannula is first inserted into your vein.
4. You will be asked to lie on your side (or face) on the operating table.
5. The procedure site is first disinfected then local anaesthetic will be injected into the skin.
6. The needle is then inserted on your back under X-ray guidance to the desired position and confirmed by a small amount of contrast.
7. You are requested to lie as still as possible during insertion of needle to prevent any complication.

8. Local anaesthetic or a neurolytic agent is then injected into the plexus or nerve plexus.
9. The whole procedure takes between 15-45 minutes

Side effects and Complications

There are potential side effects and complications, which in most cases are uncommon and may not be serious.

1. You may feel dizzy as your blood pressure may drop temporarily during or after the injection. This may be corrected by staying calm and by infusion of fluid through the intravenous cannula.
2. During the injection of the neurolytic agent, there is a small risk (<5%) of destroying nerves to the muscle and skin (nerve supplying the muscle and skin). If this happens, you may feel a burning sensation in the affected area that may last for a period of time. Rarely leg weakness and paraplegia may occur.
3. During the insertion of the needle, blood vessels may be traumatized and bleeding may occur. Usually the bleeding is transient and does not cause any major problem.
4. If you are allergic to one of the injected solution, you may experience a hot flush, dizziness or develop a rash. However this is rare and should get better within a few hours.
5. Bacterial infection due to the procedure is rare.
6. There is a rare risk of permanent nerve damage.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor.