Department of anaesthesia and pain medicine

Paravertebral block

What is a paravertebral block?
It is an injection of local anaesthetic into the paravertebral space. The paravertebral space is a small area that lies on either side of the vertebrae - bones which make up the spine - or back bone. It runs along the entire length of the back. The space at the back of the chest is called thoracic paravertebral space and lower down it is called lumbar paravertebral space. Nerve fibres carrying pain signals to the spinal cord and the brain pass through this space. Other nerves called sympathetic nerves, which control temperature, blood flow, sweating and action of internal organs also pass through this space.

A mixture of local anaesthetic and steroid is used for the injection. The local anaesthetic acts on the nerves and temporarily blocks their function. The steroid decreases inflammation and improves the chances of longer term relief from the injection.

Why is the injection given?
The block is done to help to test if the pain is due to the nerves in your chest, abdomen or leg and to treat it.

How is the injection done?
We will ask you to come to the surgical day case unit (SDCU, department 4) and a nurse will escort you to the operating theatre. The injection is usually done with you lying on your front. During the procedure, the doctor will place a cannula (plastic tube) in the back of your hand to give sedation (for relaxation) or other medication if needed. He will mark the injection site and inject a local anaesthetic to numb the skin. He will insert a needle in your back. The doctor will confirm the position of the needle with the help of an x-ray machine. He will also use an injection of dye to confirm the correct position and will then inject the medication (a mixture of local anaesthetic and steroid).

What are the benefits of this treatment?
The injection may reduce pain in the upper or lower limbs and may help in improving mobility.

What are the possible immediate effects after the injection?
If the injection is in the thoracic (chest) region, your arm may feel warm and heavy. Your eyesight may be a little blurred. Your voice may become hoarse and your nose may feel a little blocked up. If the injection is in the lower back, your leg may feel slightly warm.
What are the side effects?
You may get some injection site pain after the procedure and, at first, have some increase in your pain. It is usually short term and easily controlled with painkillers. There may be some local bruising and tenderness on your skin. Other extremely rare side effects which may need special treatment include: infection, bleeding, further spread of the numbness, nerve damage and damage to surrounding tissues.

Potential side effects with use of steroids
There are very few side effects with single or occasional use of steroid injections. Sometimes people have hot flushes, feel sick or have mild abdominal pain. These settle in a few days. Control of diabetes may be difficult and you may have irregular periods.

Advice and precautions
- You will need to stay in the hospital for at least an hour after the procedure.
- If there is long-lasting numbness, you may have to stay in hospital overnight.
- A follow-up appointment will be arranged, so that the doctor or nurse can review the effects of the block.
- You should carry on with your normal activities. Try to increase the exercises and aim to reduce your painkillers if the effect of the injection appears to have been successful.
- If there are any concerns or queries please contact the pain clinic.

It is very important to tell your doctor or secretary of the pain clinic, at least a week before the injection if:
- you are allergic to any medications
- you are on blood thinning medication such as Warfarin, Fondaparinux, Nicoumalone (Sinthrome), Aspirin, Clopidogrel (Plavix)
- you have an infection at the injection site
- you have had a recent steroid / cortisone injection in the hospital or at the GP’s surgery
- you think you might be pregnant
- you are a diabetic on insulin; your blood sugar may be difficult to control for a few days tending to be high
- you have had a recent heart attack or vaccination, please contact the pain clinic.

Contacts
Pain secretary on 0161 446 8493

Pain team
Dr Julian Scott-Warren, consultant in pain medicine & anaesthesia
Jennifer Nuttall, pain nurse specialist
Shiji Thomas, acute pain nurse
If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

We try to ensure that all our information given to patients is accurate, balanced and based on the most up-to-date scientific evidence. If you would like to have details about the sources used please contact patient.information@christie.nhs.uk

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Contact The Christie Hotline for urgent support and specialist advice

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The Christie Patient Information Service
November 2017 - Review November 2020