



Non-Surgical Vertebroplasty

PUTTING LIVES & VERTEBRAE BACK TOGETHER



PERCUTANEOUS VERTEBROPLASTY

This brochure will provide you with essential information about percutaneous vertebroplasty. It explains briefly what is involved, its benefits over other forms of treatment and some of the more salient risks. It is not meant to replace an informed discussion between you and your referring doctor or interventional radiologist who will be performing the procedure. If you have any questions regarding the procedure, do not hesitate to ask your referring doctor or the interventional radiology staff.

What is Percutaneous Vertebroplasty?

This is a minimally invasive, non-surgical form of treatment for vertebral compression fractures, usually caused by osteoporosis, which have failed to respond to conservative medical therapy. In some instances, vertebroplasty may be used for painful compression fractures due to tumour. Indications for vertebroplasty included intolerable side effects to analgesia and little or no pain relief with analgesia, bed rest, physiotherapy and use of a corset. Compression fractures of the vertebra or collapsed vertebrae which do not heal can cause persistent pain and continued collapse if left untreated. The procedure involves insertion of a special needle through the skin into the fractured vertebral body and injection of medical grade bone cement in its liquid form. It can result in rapid pain relief and it also helps prevent further height loss of the vertebral body once the cement hardens.

Preparation for the procedure

A blood test may be required to test for any blood clotting problems.

If you are on any medication, kindly inform your referring doctor and the Radiology Department of this. If you are currently taking any blood thinners, this may have to be stopped for 3-5 days prior to the procedure. Your referring doctor will advise you on this. Similarly, diabetic medication may have to be halted until after the procedure as fasting may be required for the procedure.

In general, fasting 4-6 hours prior to the procedure is recommended.

Arrive early at the hospital as time is often required for registration, admission and other administrative details. If the procedure is to be performed as an outpatient, please arrive at least 20 minutes before your procedure time. If the procedure is to be performed as a day-case or inpatient, please arrive at least 2 hours before the procedure time.

Remember to bring all recent and relevant imaging of the spine, in particular, X-rays and MRIs

What happens during Percutaneous Vertebroplasty?

The procedure is performed in the Radiology department. Under high-resolution fluoroscopic (real-time X-ray) guidance, a special needle is inserted through the skin, into the fractured vertebral body. Liquid bone cement is injected under X-ray control. This is to monitor for any potential leak of cement outside the bone during the injection. The cement hardens within about 15 minutes to stabilize the fracture. This procedure is usually performed under

Benefits and Risk

BENEFITS

This is a minimally invasive procedure which can be performed as a day-case. It provides quick and almost immediate pain relief if the pain is due to the fracture alone. General anaesthetic is usually not required and recovery time is therefore rapid. In elderly patients who are bed-ridden because of the pain, this will help mobilize them quickly, to reduce the risk of bed-sores and pneumonia.

RISKS

Overall, the risks are low (estimated at less than 2%). Below is a list of some of the more salient risks.

- Any invasive procedure, no matter how minimal, will carry a risk of bleeding. Most of the time, the bleeding is mild and self-limiting, requiring no further treatment. Depending on the target organ, this risk may sometimes be higher than others. Significant haemorrhage requiring surgery or further intervention very rarely occurs.
- Any procedure which requires skin penetration carries a small risk of infection.
- Cement leakage may occur into the spinal canal, causing nerve and spinal cord injury, resulting in paralysis
- Cement leakage into the blood stream with resultant embolization of cement to the lungs, resulting in difficulty in breathing
- Allergy to cement
- Risk of a later fracture in the adjacent vertebra. In the case of osteoporotic fractures, this risk is not higher than the risk of a new fracture from the underlying osteoporosis itself.

In any procedure, there are risks, including death, which are rare and unpredictable. It is not possible to list every single risk. Any of these potential complications, both listed and not listed above, may require further surgical or interventional procedures for treatment.

Alternatives

There are always alternatives for treatment. Surgery or further conservative management may be options. These should be discussed with your referring doctor.

deep conscious sedation. This will be provided by an anesthetist who, in addition to sedating you, will also monitor your vital signs and breathing to ensure your stability and comfort throughout the procedure. Rarely, general anaesthesia may be required.

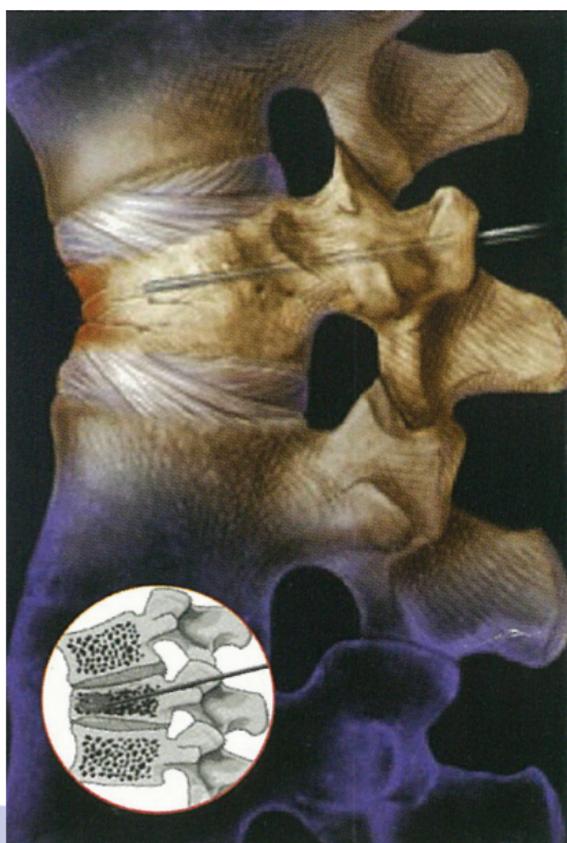
After the procedure

Following the injection, you will be kept in the procedure room until the cement has hardened. You will then be transferred back to your room where you should remain in bed for the next 2 hours. You will be permitted to sit up in bed after this. One hour after sitting up (i.e. approximately 3 hours after the cement injection) you will be allowed to try standing and walking with support. This is to ensure that the cement has achieved maximum hardness before allowing you to weight-bear.

Efficacy of procedure

For persistent pain due to such vertebral fractures, this procedure has a high success rate at reducing this pain either completely or significantly so that pain medication may be reduced. Significant pain relief has been described in up to 80-90% of cases. In most cases, pain relief is almost immediate. When the local anaesthetic wears off in a few hours, the injection site may be sore. This should not be confused with the pain from the fracture.

There may be other causes of persistent back pain such as pain due to disc prolapse, nerve root or facet joint disease which will not be relieved by vertebroplasty alone.



I confirm that I understand the information herein about Non-Surgical Vertebroplasty as it has been read by me and / or explained to me.

Name: _____

*Passport/NRIC No: _____

Signature: _____

Date: _____

Confirmation given before (Staff's name): _____

Staff's Signature: _____

Date: _____

*Please delete as applicable



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