



Introduction

1. Vertebroplasty is the percutaneous injection of bone cement (polymethylmethacrylate, PMMA) into a fractured vertebral body, to stabilize the spine, to increase mobility, and to relieve pain from symptomatic vertebral compression fractures caused by osteoporosis, metastases, or benign vascular tumor.
2. Recent studies on this Procedure reported the success rate in pain relief of approximately 70 – 90%.

The Operation / Procedure

1. The procedure is performed under local anaesthesia using aseptic techniques.
2. Your vital signs (blood pressure, pulse and oxygenation status) will be monitored throughout the entire procedure.
3. You will lie face down on the examination couch. The puncture site is located under fluoroscopic / CT guidance. A needle is inserted into the target bone after local anesthesia is given. A mixture of bone cement and radio-opaque substance (such as sterile barium particles) will then be injected slowly into the collapsed vertebral body under fluoroscopic guidance.
4. Injection for pain relief will be given if required.
5. The procedure usually requires 1-2 hours (depending on the number of vertebra to be treated).
6. After the procedure, your vital signs (blood pressure and pulse rate) will be monitored. You can resume diet if the vital signs are stable.
7. You may go home after a few days if stable without major complications.

Before the Operation / Procedure

1. A written consent is required.
2. Inform medical staff before the examination if patient is or may be pregnant as the examination involves high dose of X-ray that is harmful to a foetus. Pregnancy test may be necessary in case of any doubt if the examination is to be proceed.
3. Keep fasting for 4 hours prior to the examination.
4. Check clotting profile for any bleeding tendency, to be corrected if abnormality detected.
5. Set up venous access.

Risk and Complication

Reported significant complications are low (less than 10%). They include:

1. Cement leakage lead to spinal cord compression (0.4%) and spinal nerve roots compression (1.7%), which may cause paraplegia or paresthesia, this may require emergency decompression surgery.
2. Pulmonary embolism (0.2%)
3. Infection (rare).
4. Exaggeration of pain.
5. Radiculopathy (pain due to irritation of nerve roots) (<5% in osteoporotic fracture).
6. Bleeding along the puncture site (rare).
7. Rib fractures (rare).
8. Death (very rare).

Should a complication occur, another life-saving procedure or treatment may be required immediately.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

The Hong Kong Society of Interventional Radiology Limited,
Patient Information Leaflet: Percutaneous Vertebroplasty (2010)