Vertebroplasty

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Vertebral compression fractures can cause significant back pain. In the context of palliative care patients these fractures are primarily due to metastatic disease, although osteoporotic fractures are a much more common cause in the wider population. Percutaneous vertebroplasty (or the related procedure kyphoplasty) is a relatively minimally invasive injection of bone cement performed under imaging guidance that may bring about pain relief, particularly when the fractures are acute.

Procedure

Vertebroplasty involves injection of bone cement into the vertebral body marrow under fluoroscopic or CT guidance.

Indications

Osteoporotic crush fractures are the main indication for vertebroplasty.

Vertebroplasty of malignant compression fractures may also bring about significant pain relief, although less often than for osteoporotic fractures. The procedure is generally reserved only for acute fractures due to lytic metastases (e.g. in myeloma) causing severe pain without retropulsion of bony fragments or epidural disease. An MRI is helpful in distinguishing between acute fractures and chronic fractures (marrow oedema on MRI suggests an acute fracture) whereas bone scans are less helpful.

Contraindications

The following are contraindications to vertebroplasty:

- Intercurrent local or systemic infection
- Uncorrected coagulopathy

Complications

Complications are uncommon but if the bone cement leaks out of the vertebral body, neurological damage can occur.

radiology, orthopaedics, procedure, analgesia, textbook
