

evidence based guidelines

VERTEBRAL COMPRESSION FRACTURES

Diagnosis

Signs and symptoms

2/3 of vertebral compression fractures are silent and occur chronically

- Often found incidentally on another imaging study
- Clinical exam may suggest loss of height, thoracic kyphosis, or gradual neurologic compromise

May be caused by a fall or trauma, but may be more trivial (e.g. lifting an object, coughing/sneezing, turning in bed)

Pain can be either sharp or dull and is usually centralized (T8-L4) but may refer laterally

Pain is often worse while upright and reduced when reclined

Movement and changes in position worsen the pain

Percussion over spinous process may elicit localized pain

Imaging

Begin with plain film X-ray

Pursue MRI, CT, and/or bone scan for atypical cases

- Concern for cancer (abnormal labs, weight loss, h/o cancer, etc.)
- Patient is at low risk for osteoporosis (esp. young age)
- Presence of neurologic symptoms (may suggest spinal canal compromise)
- Atypical fracture pattern (multi-level, $\geq 50\%$ height loss, kyphosis $\geq 30\%$, extends into posterior column)
- Symptoms are not improving as expected (pain usually resolves within 6-8 weeks)

Acute Treatment

Low to Moderate pain:

Acetaminophen and Non-steroidal anti-inflammatories

Topical lidocaine patches

Nasal calcitonin

Physical therapy

Severe pain: (unable to participate in PT or remain upright for most of the day)

Consider risks/benefits of opiate use – See “Pain Management” guideline

Consider Percutaneous Vertebral Augmentation (Vertebroplasty, Kyphoplasty, etc)

- Will need MRI or SPECT scan to assess acuity and anatomy
- Hold anti-coagulants using “High Bleeding Risk” column on [“Management of Anticoagulants – Interruption for Elective Surgery” guideline](#).
- Contact any of the following Holland PHO providers:
 - o [Great Lakes Neurosurgical Associates, PC](#): (616) 738-4420
 - o Holland Hospital Interventional Radiology: (616) 394-3596

Chronic Treatment

Treat pain using “Pain Management” guideline

If low-impact fracture (fall from stand) in a post-menopausal woman or man ≥ 50 yo

Obtain Bone Mineral Density

Consider work-up for secondary causes of osteoporosis

Initiate medical management for osteoporosis (even if BMD is NOT ≤ -2.5)

- See “Osteoporosis Fracture Prevention” guideline