

# Back pain suggesting malignancy or inflammatory disease

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A 65-year-old man presents with persistent back pain that has worsened over a period of months and extends into his buttocks and thighs. What are the diagnoses to consider and how should he be investigated?

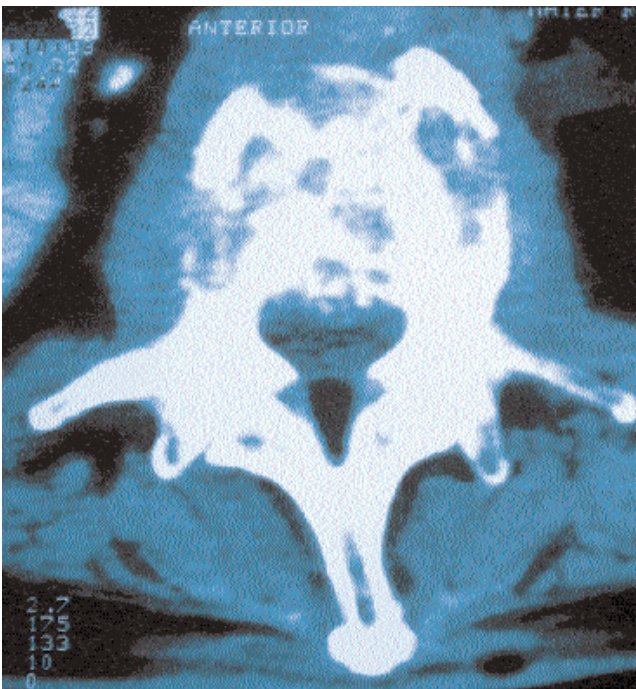


Figure. A CT scan of a spinal metastatic tumour showing vertebral body destruction.

## Case presentation

A 65-year-old man presents with persistent low lumbar back pain. The pain has been present for a few months and has gradually worsened. It troubles him persistently each night and he cannot find a comfortable position in bed. The pain radiates into both buttocks and both thighs, but he has no true radicular symptoms.

On examination, his lumbar movements are quite markedly restricted by pain. He is tender in the midline in the low lumbar region. Straight leg raising is restricted by back pain rather than leg pain. He has no neurological signs.

## Differential diagnosis

The worrying features in this case are the gradually increasing pain over only a few months, the lack of remission from pain and the little relief from pain at rest, notably at night. These are not features of mechanical back pain, and more serious conditions must be considered, especially secondary malignancy (Figure), multiple myeloma, osteomyelitis or discitis, although a history of osteomyelitis or discitis is more likely to be one of days or weeks.

## Investigations

Systematic enquiry in the case of a 65-year-old man should cover the urinary tract, respiratory and gastrointestinal systems, and any history of weight loss. Investigations should be pursued energetically, probably in a specialist setting, and should include:

- plain x-rays
- CT scan
- bone scan
- comprehensive pathology (including protein electrophoresis and PSA level).

Biopsy (preferably needle biopsy under CT control) may be required to establish the diagnosis.

## Keypoints

- Persistent and worsening pain of recent onset with no relief at night is strongly suggestive of serious pathology.
- Investigations should be pursued thoroughly, preferably in a specialist setting.

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