

Neuroradiolog

REMARKS

1 Plain radiograph

- **1.1** Plain film abnormalities may not necessarily correlate with significant neurological lesion.
- 1.2 If CT is not available, open-mouth view may be needed to assess the C1/C2 region. Swimmer's view may be needed if the lower cervical levels are not well demonstrated on the lateral view.
- 1.3 Flexion and extension views are needed in patients with suspected ligamentous injury with normal initial radiographs.
- 1.4 Oblique radiographs are no longer recommended as part of the initial radiographic evaluation of the cervical spine in the setting of chronic neck pain.

2 Nuclear medicine

- 2.1 Combined gallium and bone scan studies have high sensitivity and specificity in diagnosing vertebral osteomyelitis and should be considered the imaging modality of choice when MRI is contraindicated.¹
- 2.2 Use of single photon emission computed tomography (SPECT) imaging may be helpful in identifying the pain source e.g. facet disease.²

3 CT

- 3.1 CT myelography may be particularly advantageous in evaluating osseous lesion which contribute to canal or foraminal narrowing, and is a viable alternative to MRI for patients with suspected cord involvement, when MRI cannot be performed.³
- 3.2 Both CT and MRI can accurately diagnose tumors and inflammation, and they should be considered complementary studies.⁴

4 MRI

- 4.1 MRI gives excellent depiction of bone marrow signal, intervertebral discs, facet arthropathy and spinal stenosis, and may be considered the first line advanced imaging study in patients with chronic neck pain.⁵
- 4.2 Specific indications for MRI also include suspected malignancy or infection, whether neurological symptoms are present or not.⁶

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