Avascular necrosis of hip

Plain radiographs reviewed. Frog’s lateral view for symptomatic side and AP view of pelvis

- Normal findings
  - Clinical suspicion low: STOP
  - Clinical suspicion high: MRI

- Findings suspicious or equivocal
  - No surgery contemplated
    - Evaluation of contralateral side needed
    - MRI
  - Surgery

- Abnormal
  - STOP
REMARKS

1 Plain radiograph
   1.1 Plain radiographs should be the initial imaging examination.
   1.2 It is useful for staging the disorder from patchy sclerosis and subchondral lucency to collapse of the articular surface, dense bone sclerosis and fragmentation, degenerative changes.

2 Nuclear medicine
   2.1 It is highly sensitive in detecting avascular necrosis with further improvement of its accuracy by the addition of single photon emission computed tomography (SPECT).

3 CT
   3.1 CT detects avascular necrosis of hip earlier than plain radiographs but it is less sensitive than both MRI and bone scan.
   3.2 Its major role is to determine the severity of secondary degenerative changes and the extent of femoral head collapse.

4 MRI
   4.1 MRI is the preferred method for detection of early occult avascular necrosis. It is also useful for disease staging.
   4.2 It detects avascular necrosis in the contralateral hip.
   4.3 It also shows other possible causes of hip pain.

REFERENCES