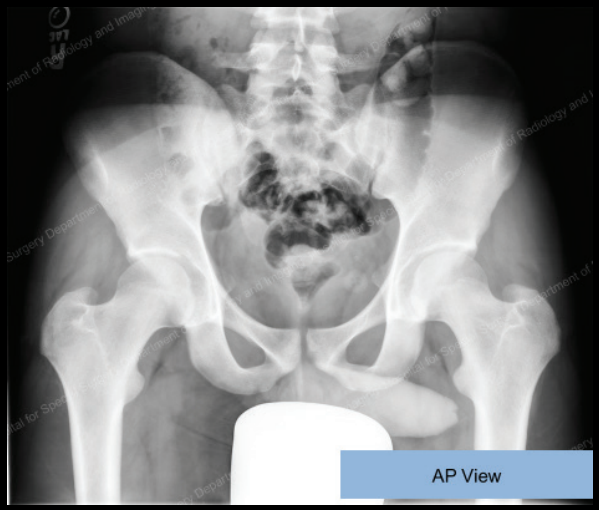
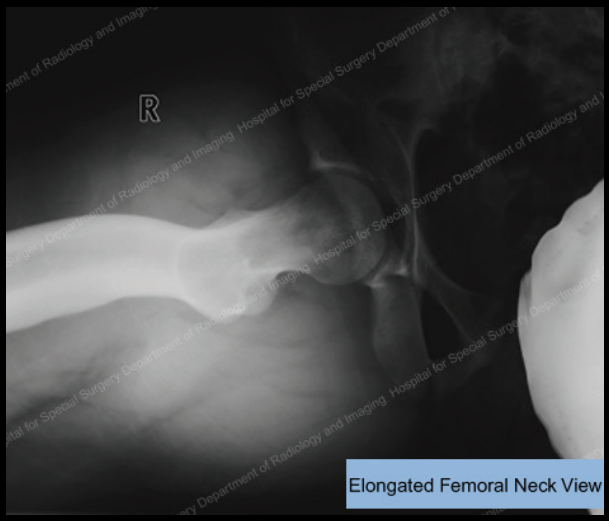
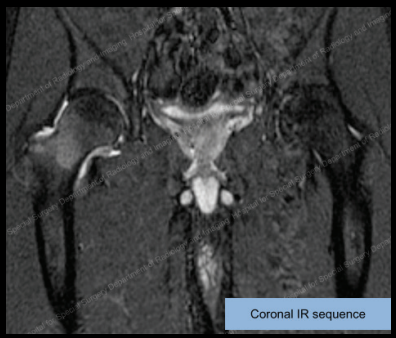
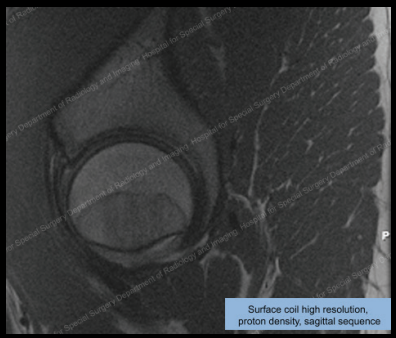


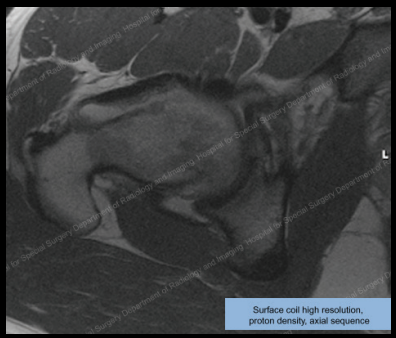



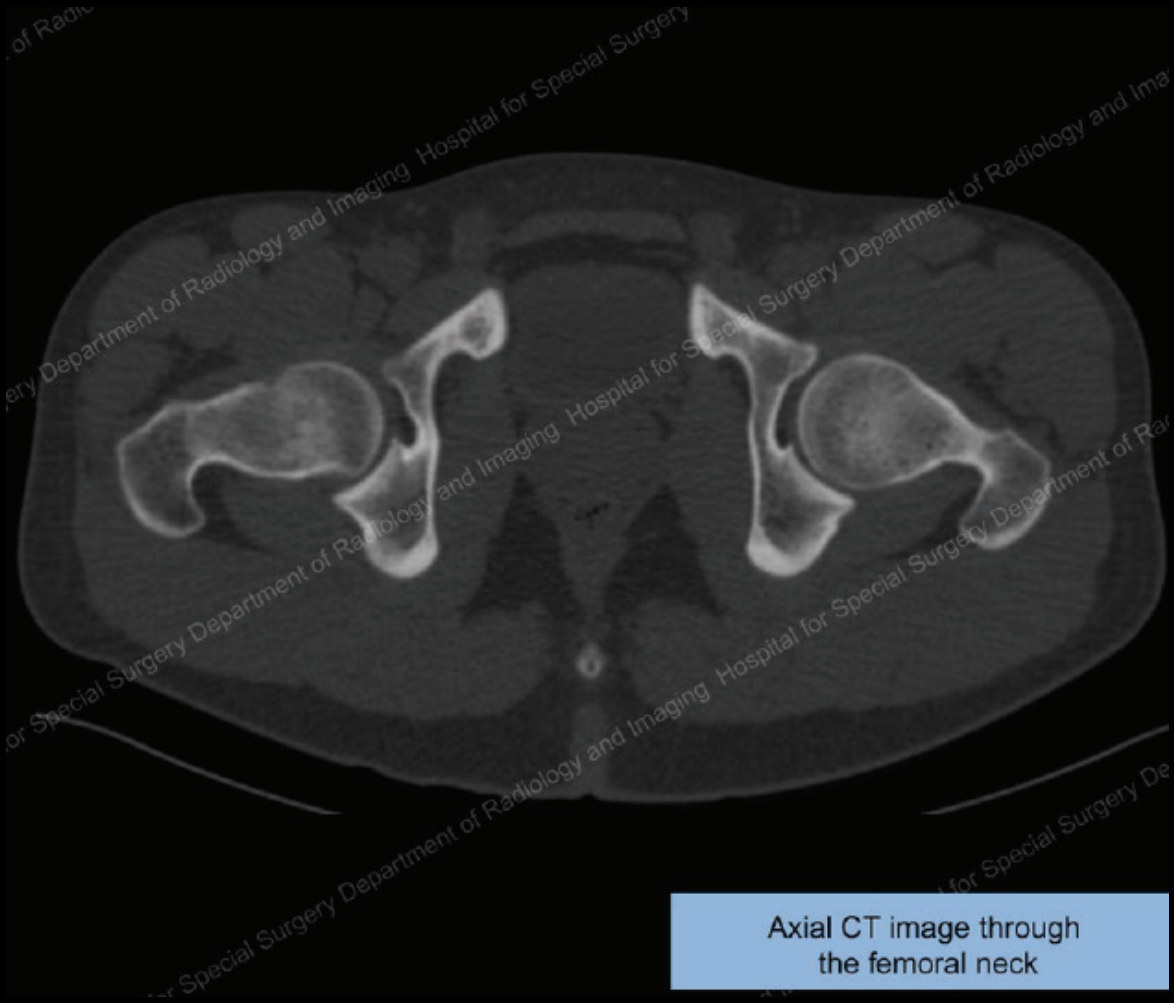

# History

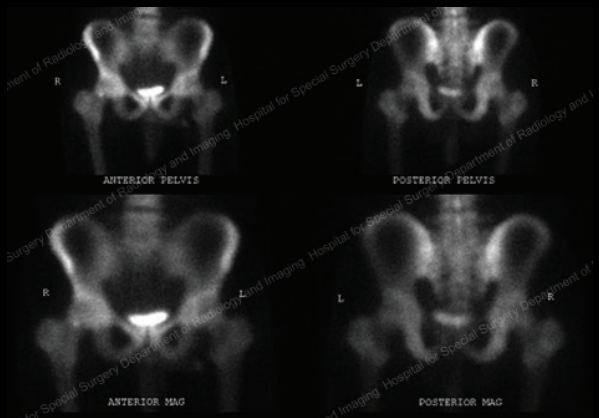
17-year-old male with right hip pain.


Coronal IR sequence

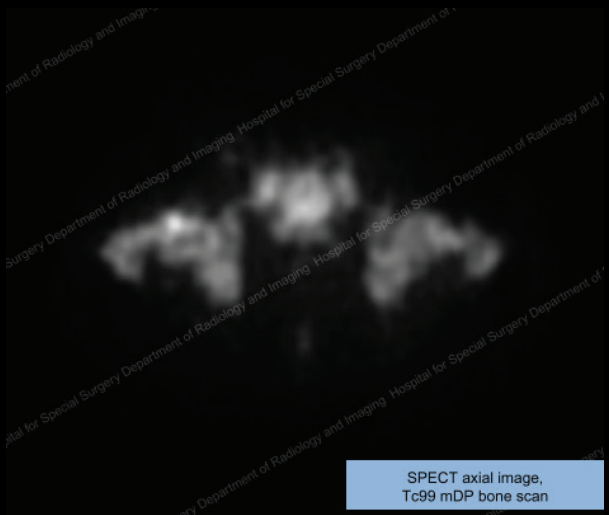

Surface coil high resolution,
proton density, sagittal sequence


Surface coil high resolution,
proton density, axial sequence


Axial CT image through
the femoral neck



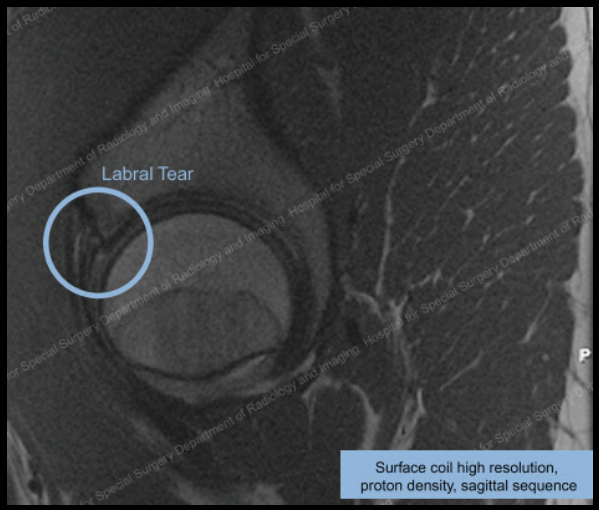

Three hour delayed spot images,
Tc99 mDP bone scan

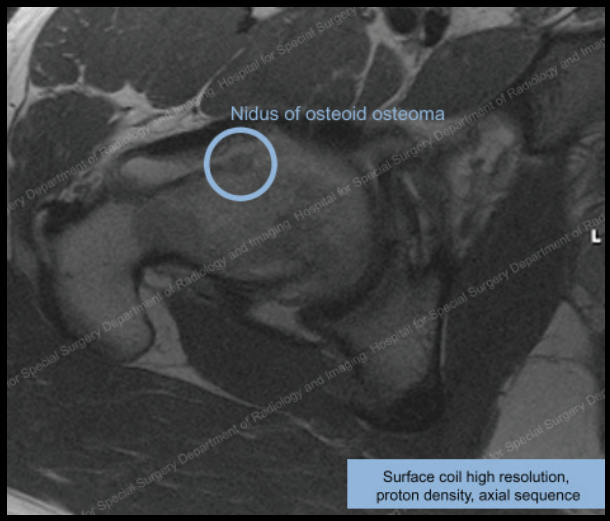


SPECT axial image,
Tc99 mDP bone scan

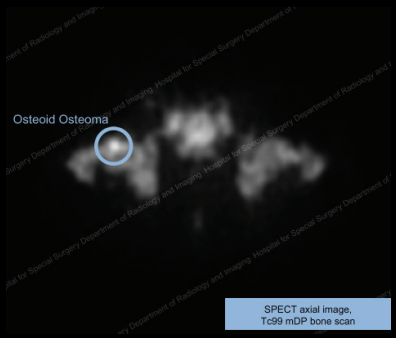
# Findings

Radiographs demonstrate a subtle loss of the normal femoral head neck offset but no focal lesion. MRI demonstrates marrow edema of the right femoral neck and a joint effusion. Subtle low signal focus is seen on the axial image and a labral tear is present on the sagittal sequence.  CT demonstrates a subtle lucent focus of the anterior femoral cortex and there is increased activity focally at this location on the bone scan.

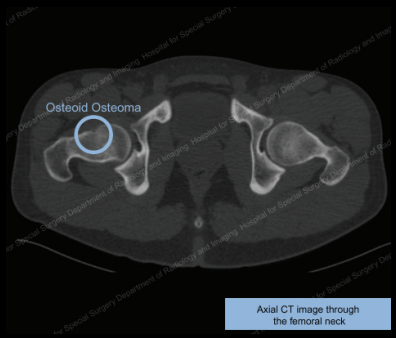

Labral Tear
P
Surface coil high resolution,
proton density, sagittal sequence


Nidus of osteoid osteoma
L
Surface coil high resolution,
proton density, axial sequence


Three hour delayed spot images, Tc99 mDP bone scan




SPECT axial image, Tc99 mDP bone scan




Axial CT image through the femoral neck

# Diagnosis: Osteoid Osteoma

Bony lesion of osteoid and immature bone that incites an adjacent reactive bony/ inflammatory response secondary to prostoglandin release. Typically in younger patients (5-25 ) and with a classic clinical pattern of night time pain alleviated with aspirin. Classified as cortical, cancellous, and subperiosteal. This case presents the rarest type, a subperiosteal lesion. Current standard of care is radiofrequency ablation if possible or resection.

# Resources


- Resnick and Kransdorf. Bone and Joint Imaging. 2005.
- http://bonetumor.org
- Lee, EH. Osteoid osteoma: A current review.
  J Pediatr Orthop. 2006 Sep-Oct;26(5):695-700.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