Osteoid Osteoma

By Hospital For Special Surgery [2]

Case History: A 17-year-old male with hip pain

Image 1: AP view
Image 2: Elongated femoral neck view
Image 3: Coronal IR sequence
**Image 4:** Surface coil high resolution, proton density, sagittal sequence
Image 5: Surface coil high resolution, proton density, axial sequence
Image 6: Axial CT image through the femoral neck
**Image 7:** Three hour delayed spot images, Tc99 mDP bone scan
**Image 8:** 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.
**Image 9:** Surface coil high resolution, proton density, sagittal sequence
Image 10: Surface coil high resolution, proton density, axial sequence
Image 11: Osteoid osteoma

Diagnosis: Osteoid Osteoma

Discussion: 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:

- Lee, EH. Osteoid osteoma: A current review.

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