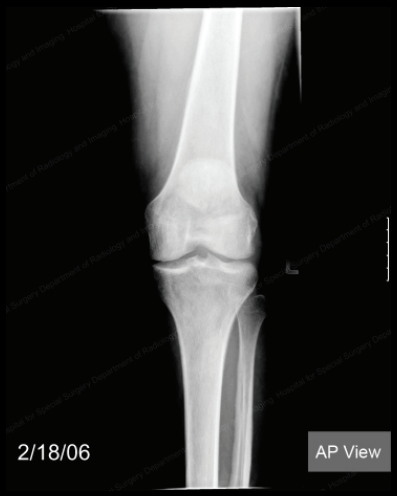
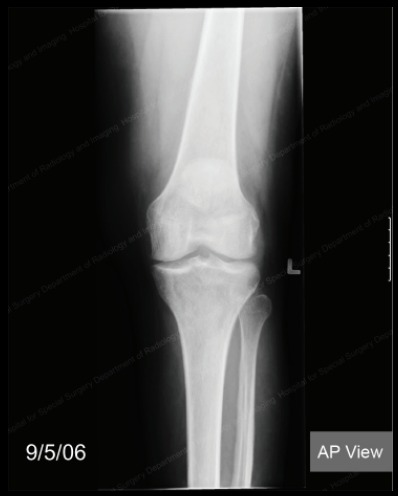
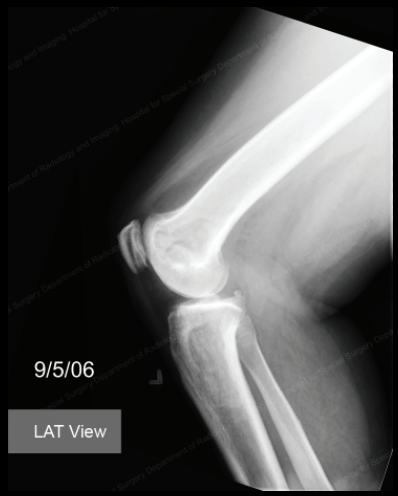
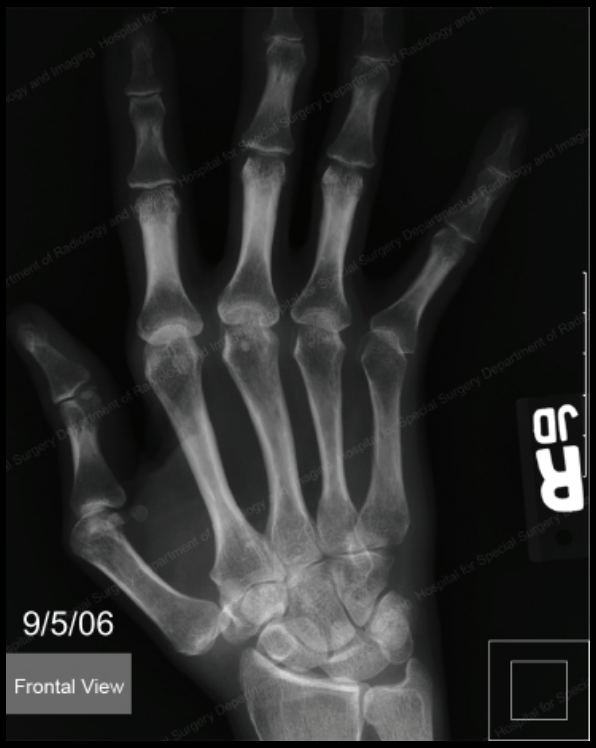


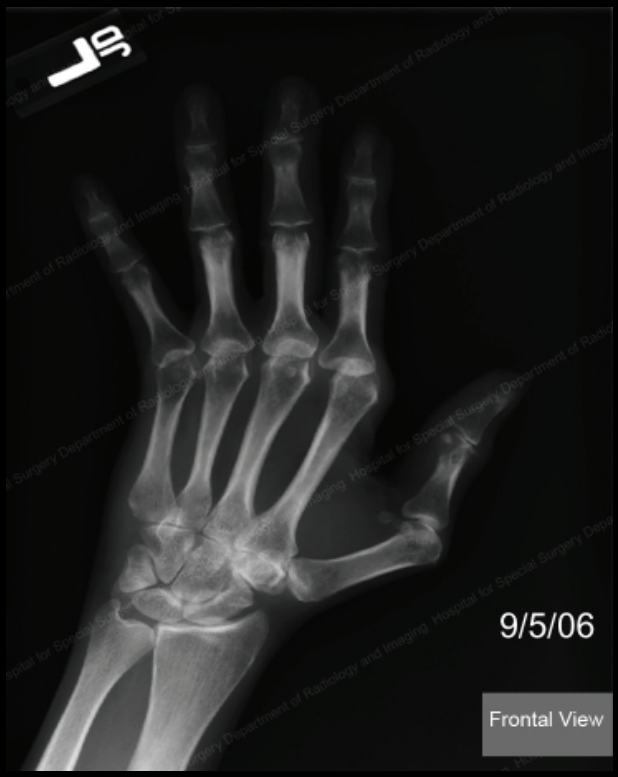




History

45 year old woman presents with long standing left knee pain. Radiographs were obtained in 2/18 and 9/5/06.


R
9/5/06
Frontal View

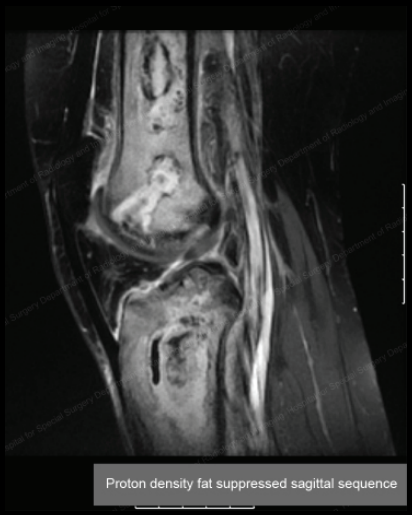

L
9/5/06
Frontal View

Findings

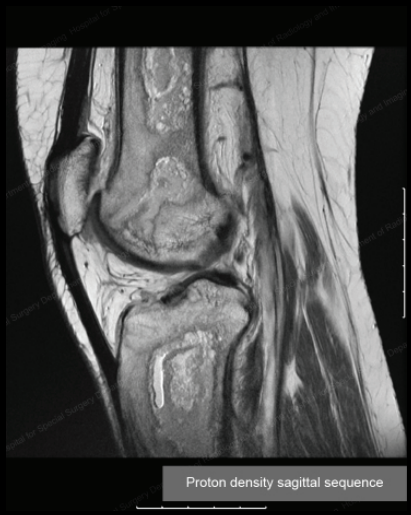
Radiographs of 2/18, subtle densities that are more conspicuous on radiographs of 9/5/06. Densities have a serpiginous, well defined, sclerotic border. Hand radiographs demonstrate ulnar subluxation of the metacarpophalangeal joints but without erosive changes.

Diagnosis: Bone Infarcts in Systemic Lupus Erythematosus

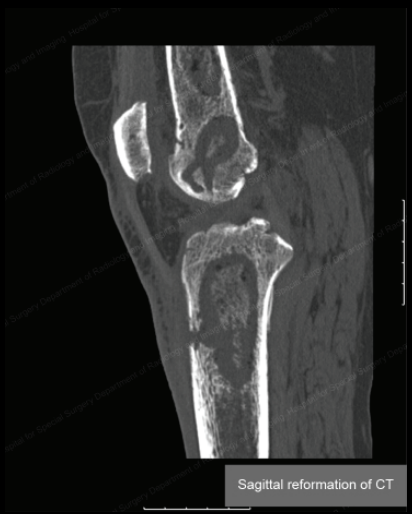
Comments: Bone infarcts are seen in a multitude of conditions, predominantly at our institution from previous trauma, steroid use, and in the setting of a vasculitis. Infarcts associated with Lupus are thought to be in part secondary to steroid treatment but also secondary to the underlying vasculitis that afflicts multiple organ systems in these patients. The nonerosive subluxation, or Jacoud type arthropathy of the hand is classic for SLE, and helps in narrowing the differential of a bone infarct.



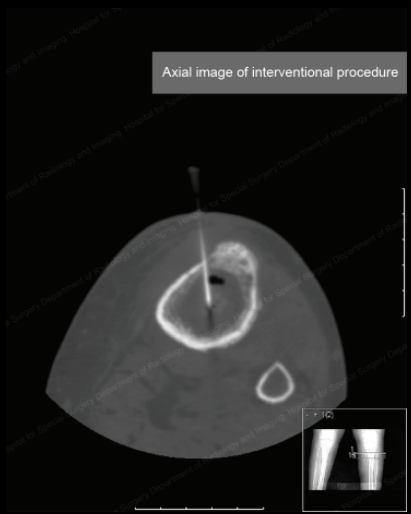
Proton density fat suppressed sagittal sequence



Proton density sagittal sequence



Sagittal reformation of CT



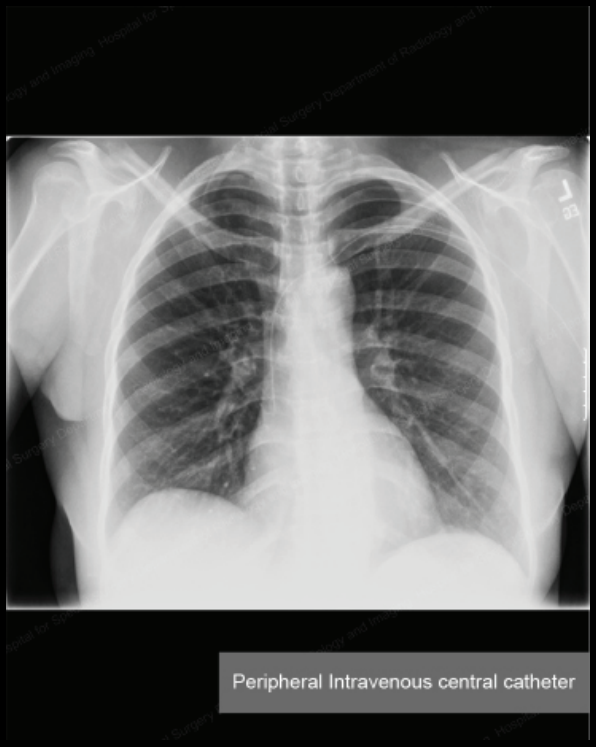
Axial image of interventional procedure

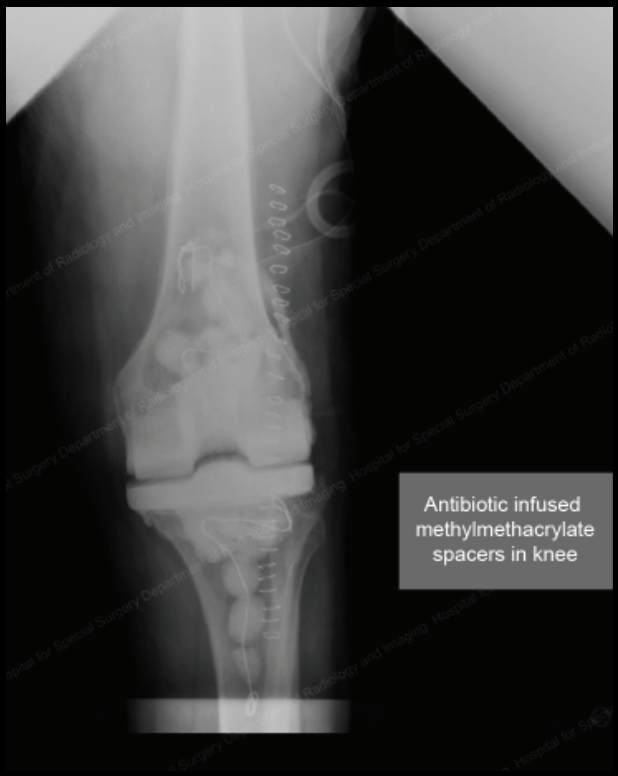
Findings

MRI demonstrates well demarcated, serpiginous areas with surrounding high and low signal borders. This corresponds to the foci of bone infarct. Atypical is the vast high signal seen within the femur and tibia. CT demonstrates central sclerotic foci of bone necrosis with large areas of surrounding lucency and cortical destruction of the anterior tibia.

Resolution

The infarcts in this patient had become complicated by an infection/septic joint and had progressed to frank bony destruction. High signal in the femur and tibia on the MRI was either secondary to the infection itself or a manifestation of an inflammatory response.





Resolution

Peripheral Intravenous central catheter was placed to administer IV antibiotics and antibiotic infused methylmethacrylate spacers were placed in the knee to treat the infection.

Resources

- Resnick. Bone and Joint Disorders 4th edition. 2002
- http://www.cmaj.ca/content/174/4/455.full
- Cervera R, Piette JC, Font J, et al. Antiphospholipid syndrome: clinical and immunologic manifestations and patterns of disease expression in a cohort of 1,000 patients. Arthritis Rheum 2002;46:1019-27

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