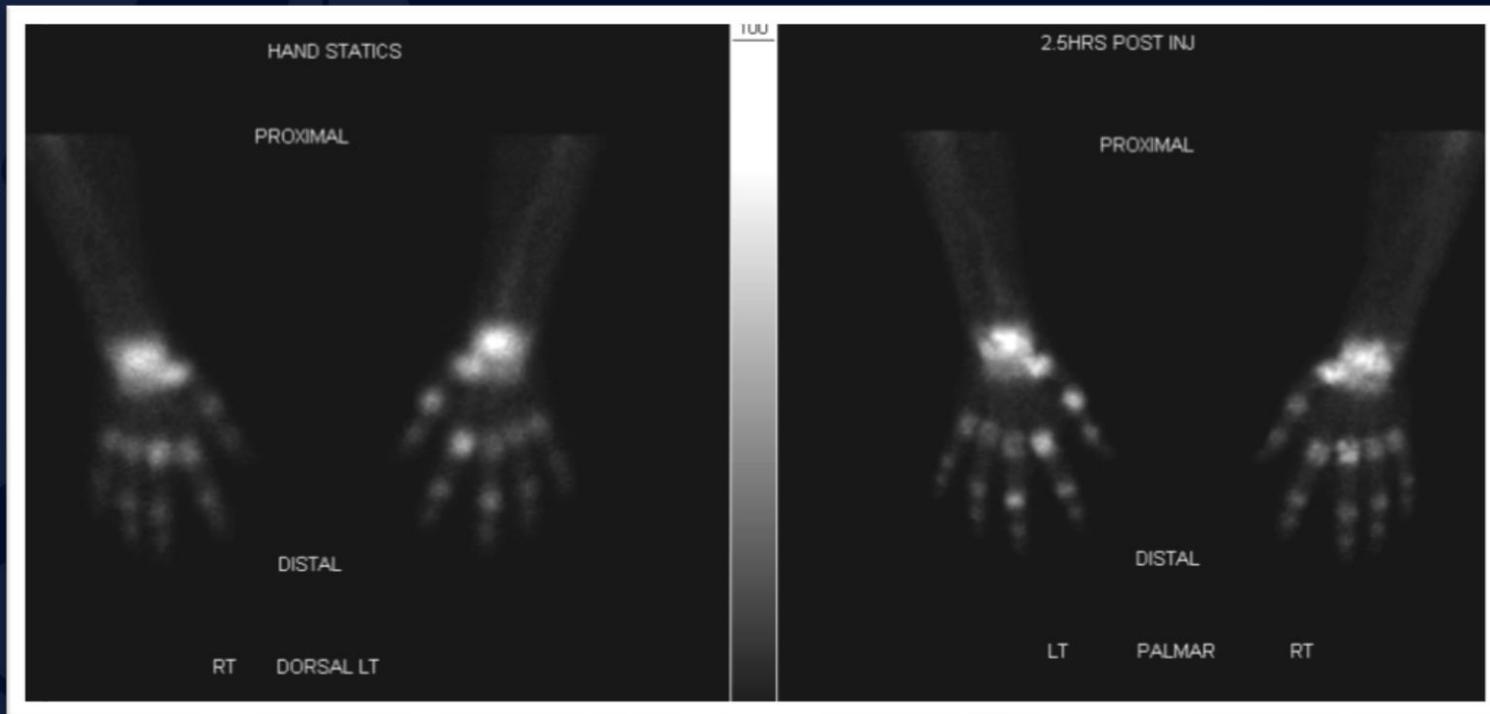
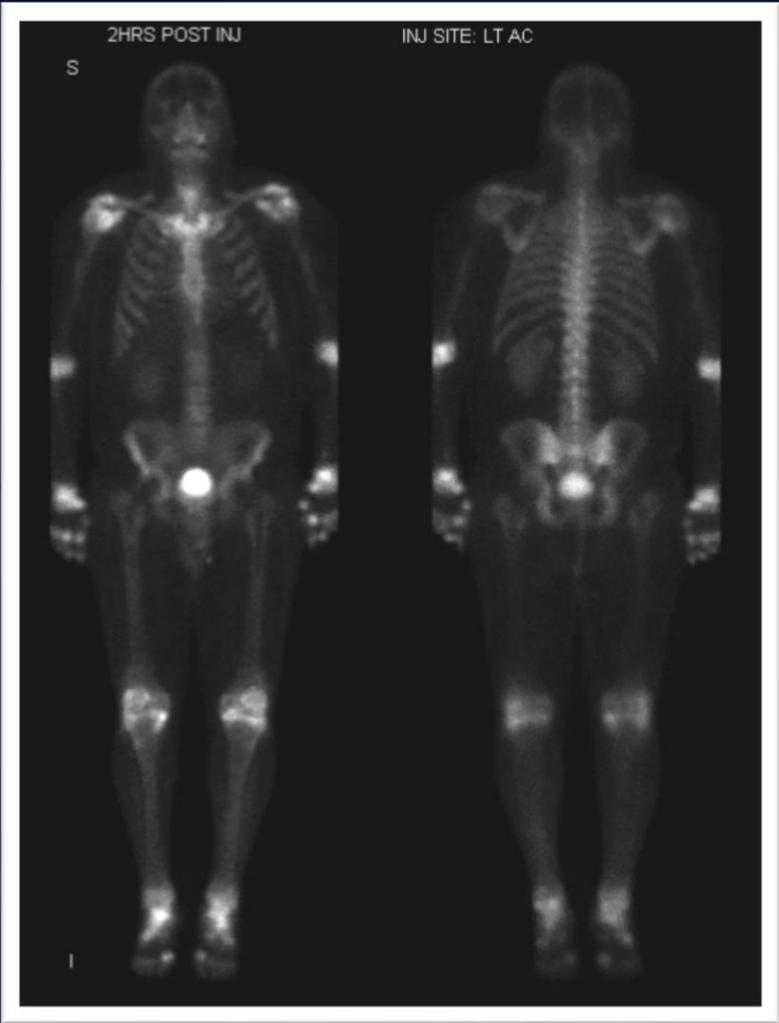


44 y/o male who reports severe knee pain with daily fevers and rash. High ESR, CRP and negative RF and ANA on labs.

Edward Gillis, DO







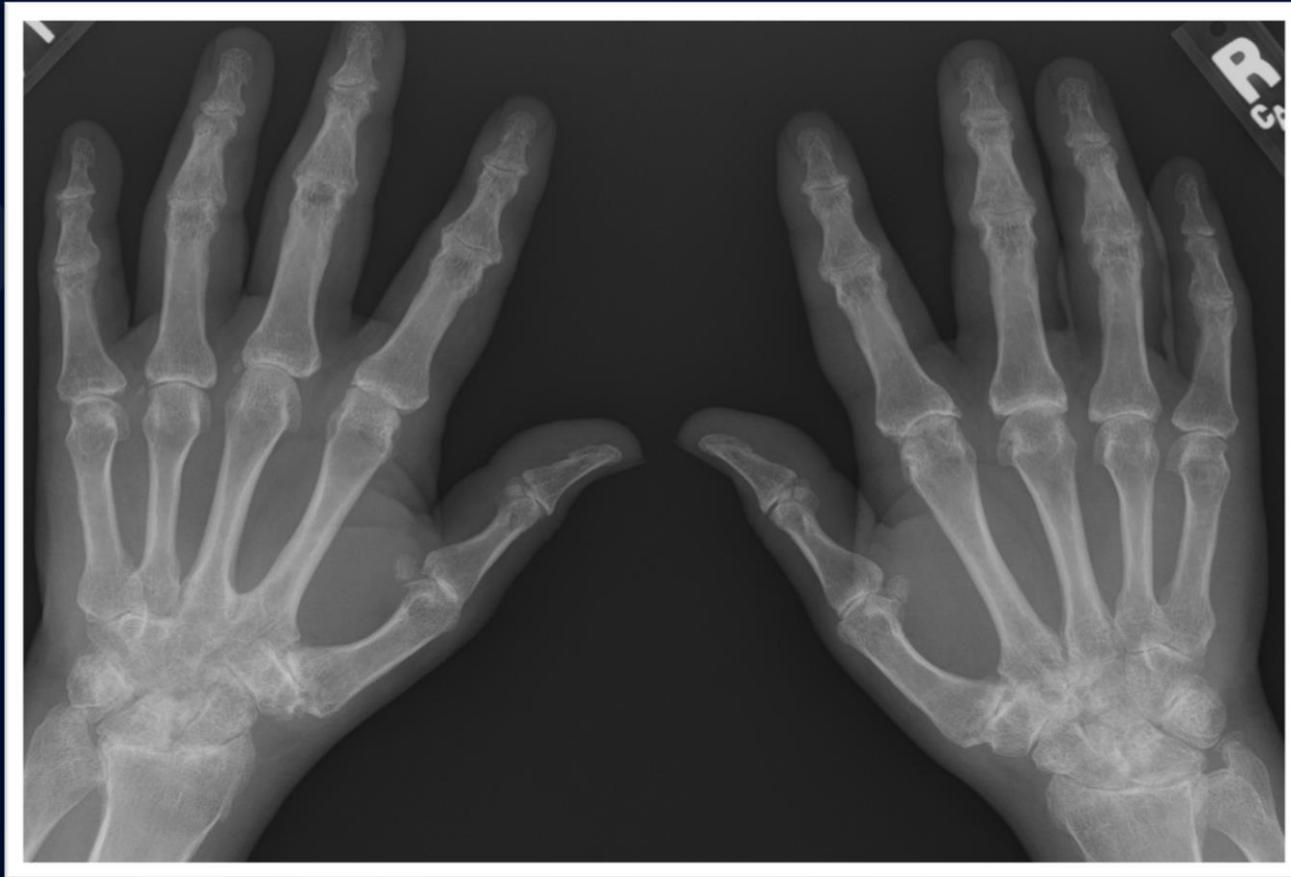
UConn
HEALTH

RADIOLOGY

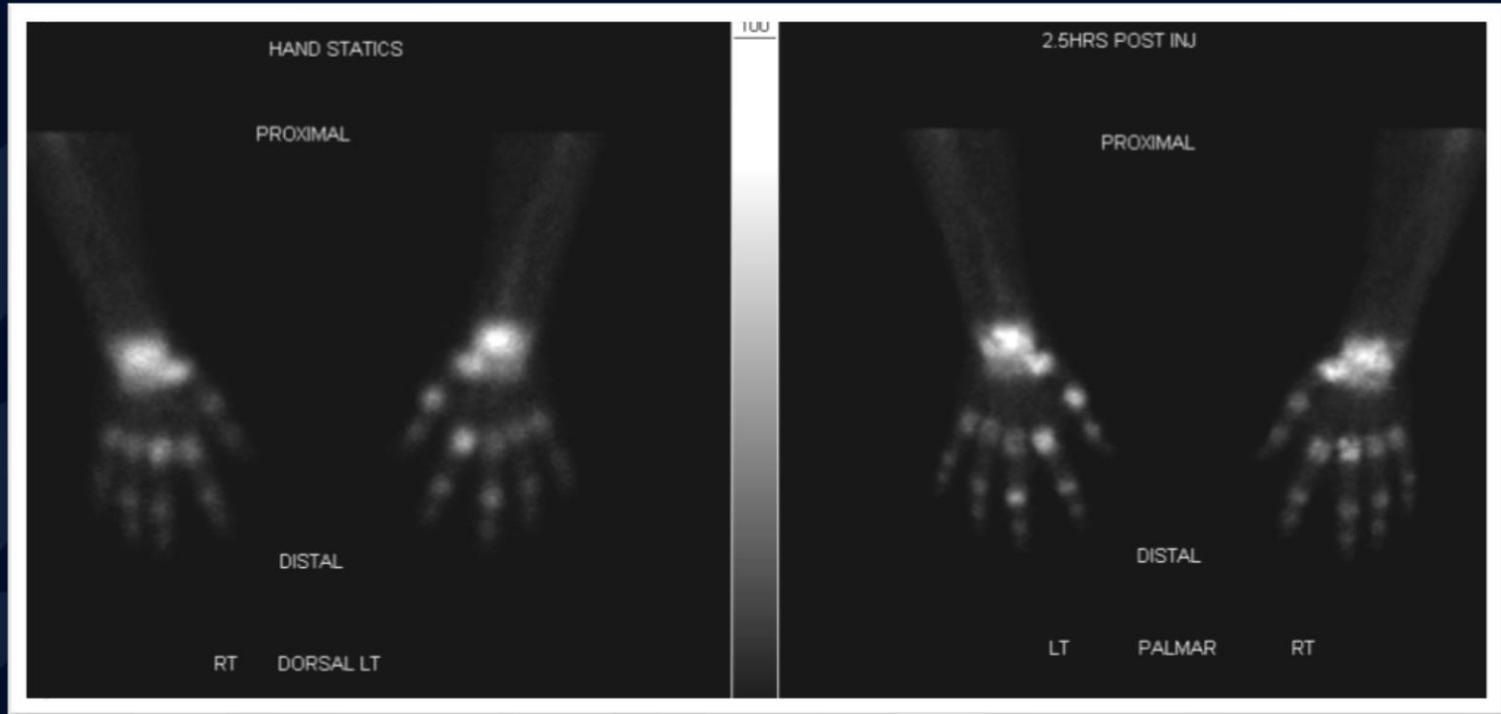
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

?

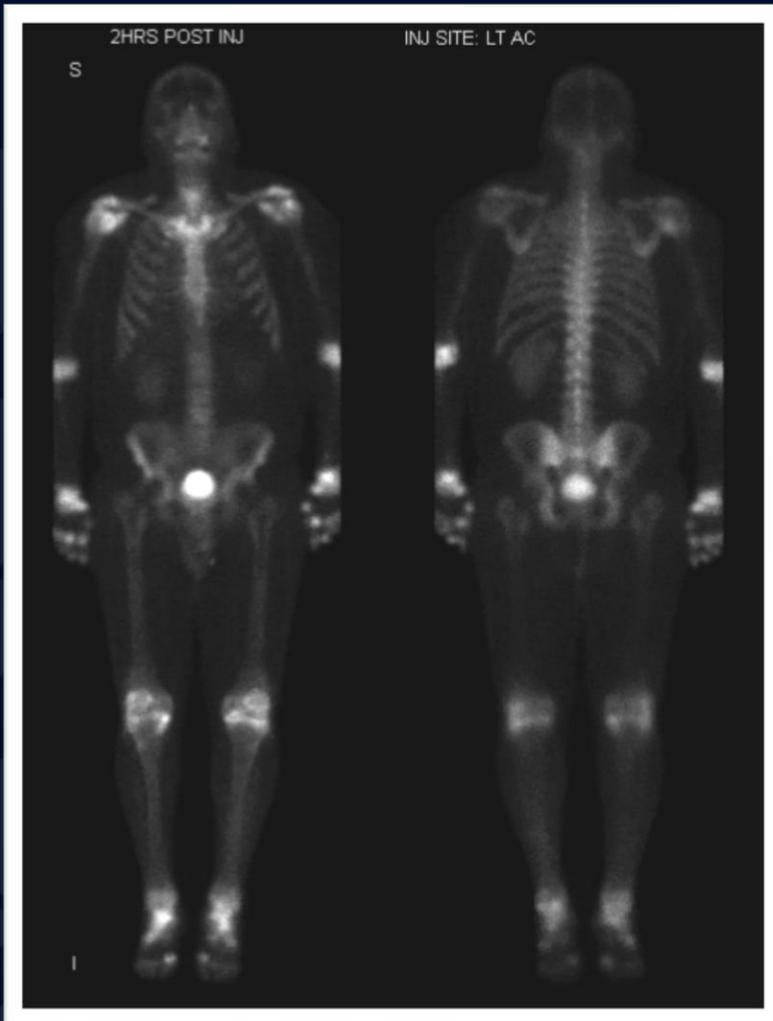
Adult Still's Disease



Frontal view of the hands shows severe radiocarpal and intercarpal joint space narrowing without significant bony productive changes. Joint space narrowing also present at the CMC, MCP and PIP joint spaces. Diffuse osteopenia is also evident.



Spot views of the hands after Tc99m-MDP injection correlate with radiographs, showing significantly increased radiotracer uptake in the wrists, CMC, PIP, and to a lesser extent, the DIP joints bilaterally.



Tc99m-MDP bone scan shows increased uptake in the right greater than left shoulders, as well as bilaterally symmetric increased radiotracer uptake in the elbows, hands, knees, ankles, and first MTP joints.

Note the absence of radiotracer uptake in the hips. Patient had bilateral total hip arthroplasties.

Not clearly evident are bilateral shoulder hemiarthroplasties. The increased periprosthetic uptake could signify prosthesis loosening.

Adult Stills Disease

Imaging Features

- Radiographs
 - Distinctive pattern of diffuse radiocarpal, intercarpal, and carpometacarpal joint space narrowing without productive bony changes. Osseous ankylosis in the wrists common late in the disease.
 - Joint space narrowing is uniform
 - May see bony erosions.
- Tc99m-MDP Bone Scan
 - Bilaterally symmetric increased uptake in the small and large joints of the axial and appendicular skeleton.

Adult Still's Disease

General Features

- Rare systemic inflammatory disease of unknown etiology
- 75% have onset between 16 and 35 years
- No gender, race, or ethnic predominance
- Considered adult continuum of JIA
- Triad of high spiking daily fevers with a skin rash and polyarthralgia
- Prodromal sore throat is common
- Negative RF and ANA

Adult Still's Disease

General Features

- Most commonly involved joint is the knee
- Wrist involved in 74% of cases
- In the hands, interphalangeal joints are more commonly affected than the MCP joints.
 - PIP: 50%
 - DIP: 20%
 - MCP: 33%
- Ankylosis, especially of the carpal bones

Adult Still's Disease

Differentials

- Joint distribution differentiates from RA
 - Interphalangeal joints > MCP involvement
 - DIP joints usually spared in RA
 - No ankylosis in RA
 - Ankylosis, especially involving the carpals is common in ASD.
- Rash and constitutional symptoms differentiate it from Psoriatic arthritis
- Axial and proximal joints predominate in IBD associated destructive arthralgias

References

1. Björkengren, A G, et al. “Carpal alterations in adult-Onset Still disease, juvenile chronic arthritis, and adult-Onset rheumatoid arthritis: comparative study.” *Radiology*, vol. 165, no. 2, 1987, pp. 545–548., doi:10.1148/radiology.165.2.3659381.
2. Efthimiou, P, P K Paik, and L Bielory. “Diagnosis and Management of Adult Onset Still’s Disease.” *Annals of the Rheumatic Diseases* 65.5 (2006): 564–572. *PMC*. Web. 18 Feb. 2018.
3. Gopalarathinam, Rajesh et al. “Adult Onset Still’s Disease: A Review on Diagnostic Workup and Treatment Options.” *Case Reports in Rheumatology* 2016 (2016): 6502373. *PMC*. Web. 18 Feb. 2018.
4. Nilegaonkar, Sujit et al. “Adult Onset Still’s Disease: Role of Scintigraphy.” *Indian Journal of Nuclear Medicine : IJNM : The Official Journal of the Society of Nuclear Medicine, India* 27.1 (2012): 48–49. *PMC*. Web. 18 Feb. 2018.