81 yo male. -Clinical Details: Left hip pain. ? Paget's disease, isolated raised Alkaline phosphotase, for bone scan -Specific Question to be Answered: Paget's disease -Past history of hx of mantle lymphoma (nothing in our system)

MRI Pelvis and Thighs Axial and Cor T1 and STIRS Slice: 6mm Dist: 7.5mm

What are those subcortical areas of intermediate signal in the pelvic bones, sparing the sacrum and femoral heads?



Is it just red marrow? Or something else?

In the STIR, the iliac bones involvement looks more diffuse









Subcortical circumpherential areas of intermediate signal (L>R)

Here, the diff betw the pelvic bones signal and femoral necks is very striking (particularly the Rt)



- At first, I thought it was just red marrow
- But then correlating with the other studies and the more I look, I think there is something going on but I am unsure of the signifcance of these MRI findings



Some selected MRI images





















































### Previous studies ...which lead to the MRI

# I only have one pelvic radiograph and 1 bone scan Nothing else in our system

Clinical History : 81 yo male. Left hip pain and stiffness, raise alk phos, no other joint pains, hx of mantle lymphoma. Ultrasound showed No parathyroid adenoma



#### NM Bone Scan: Clinical Details: ? Paget's disease, isolated raised Alkaline phosphotase, for bone scan



#### Fused Sagittals



## Axial images of the bone scan





### Some selected images of the pelvis. Femurs not imaged









# Report Bone Scan

- NM Bone whole body: Triple phase bone scan.
- There is increased cortical uptake within the proximal shaft of the left femur, with impression of minor bony expansion.
- Critically, however, the femoral head is unremarkable.
- There is uptake within vertebral body and posterior elements of T10 and L4. There is also uptake at this level associated with prominent bridging osteophytes and endplate degenerative disease.
- The pelvis shows bilateral symmetrical prominent tracer accumulation.
- Focal uptake in the lower lumbar spine correlates with bilateral L4-5 facet arthropathy.
- Impression:
- Probable Paget's disease involving T10 and L4. Possible pelvic involvement. Femoral uptake is not in a pagetic distribution and the cause is unclear. MRI may be helpful.