

Case Report: Extensive bone necrosis post steroid therapy

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INTRODUCTION:

We reported a case of 35 years old lady who has been diagnosed as Hodgkin Lymphoma and started on steroid therapy following chemotherapy. Patient presented with bilateral hip pain after 1 month of T Prednisolone 30mg BD. The early x-ray was normal thus patient was continued on reduced dose of T Prednisolone to 20mg BD.

MATERIALS & METHODS:

We did further investigation to rule out avascular necrosis. Repeated x-ray after 1 month does not show any changes thus we proceeded with MRI.

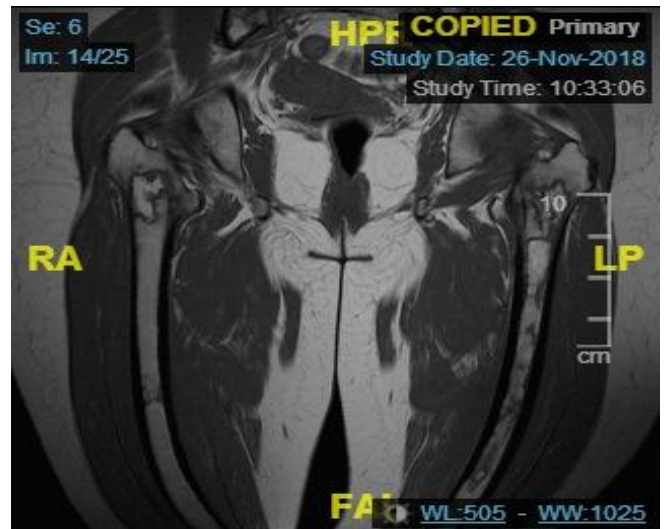
RESULTS:

MRI of hip was done on 26/11/18 and showed there are multiple geographic areas with serpiginous hypointense rim at bilateral femoral head, neck and shaft (more extensive in the left femur compared to the right, extending to the distal third of left femoral shaft). Similar areas are also seen in bilateral acetabulum, ilium and sacral ala. Some areas demonstrate the double line sign of hyperintense inner ring and hypointense outer ring.

No deformity of the femoral head bilaterally. Finding suggestive of bone infarction involving bilateral femur, acetabulum, ilium and sacral ala.

CONCLUSION

Prolonged glucocorticoid usage is one of the factors for bone avascular necrosis. Other causes include alcoholism, hematological diseases (sickle cell anemia, thalassemia, polycythemia, hemophilia, myeloproliferative disorder), metabolic diseases (Gaucher disease), hypercholesterolemia, pregnancy, chronic renal failure, hyperparathyroidism, Cushing's disease, autoimmune diseases. MRI of the patient shows extensive bone necrosis



chronic pancreatitis, caisson disease, radiation, congenital hip dislocation, and use of potent intravenous bisphosphonates. Glucocorticoid use and alcoholism comprise 90% of all non-traumatic causes of AVN.

The pathogenesis is not clearly understood by it is related to the effect of steroid on intravascular coagulation which causes disturbed in bone blood supply

Early detection through high level of suspicion might change the management in preventing pathological fracture.

The efficacy of bisphosphonates in reducing the rate of collapse of femoral head in AVN is controversial. Surgical therapy of AVN includes core decompression, osteotomy, bone grafting and joint replacement

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