



Swollen Knee in an Immunodeficient Patient

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Clinical image description

For the past 8 months, a 38-year-old HIV-positive male patient has complained of right knee swelling, dull aching, and limitation of movement (Figure 1 A). For the previous six years, he had been taking antiretroviral medications (tenofovir, lamivudine, and efavirenz). His CD4+ T cell count was 450 cells per litre, with a viral load of 556 copies per millilitre. An X-ray of the right knee joint (Figure B & C) revealed enlargement of the distal end of the femur, as well as a radiolucent area interspersed with trabeculae that resembled soap bubbles- a characteristic hallmark of Giant Cell Tumour (GST). C-reactive protein (48 mg/L) and s/alkaline phosphatase (203 IU/L) levels were elevated in blood tests, although CBC, calcium, phosphates, and parathyroid hormones were all within acceptable limits. The tumour FNAC confirmed GST. A CT scan of the chest revealed no evidence of metastases. Increased radiotracer uptake was seen at the distal end of the right femur during a bone scan using the radionuclide ⁹⁹Tc-methyl diphosphonate.



Comments

This is an instance of bone GCT that has been proven histologically. It appears to be aggressive and is radiologically appears to Grade III [1]. Brown tumour of hyperparathyroidism and Telangiectatic Osteosarcoma are two possibilities for the differential diagnosis [2]. GCT is a benign, locally aggressive bone tumour that can metastasize to the lungs in a minority of cases. It is not uncommon, accounting for around 5% of all bone tumours. The possibility of a tumor-HIV co-existence is not out of the realms of possibility.

References

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