

Left Thigh Pain and Rind Sign

Sir,

The Rind sign is radiological feature used when a lesion is surrounded by a thick layer of sclerotic reactive bone and is suggestive of fibrous dysplasia (FD). The Rind sign is most commonly seen in the proximal femur.

A 28-year-old male presented with dull aching left thigh pain worsening with activity and reduced by rest of 2-year duration. There was no history of preceding trauma, joint pain, muscle weakness, or evidence of hormonal hypersecretion. His past history was unremarkable and on examination, there was no cutaneous lesion or deformities. There was mild tenderness in deep palpation of left upper thigh with no myopathy. His bone mineral profile including bone turnover markers was within normal limits. The plain radiograph [Figure 1] showed a well-defined expansile lytic lesion with thick sclerotic margin (Rind sign) in the left femoral neck and in the inter trochanteric region, with narrow zone of transition, with ground glass matrix, no cortical break, no periosteal reaction, no soft tissue involvement which was indicative fibrous dysplasia. In the MRI [Figure 2], the lesion appeared hypointense on T1 and measured $5 \times 2.5 \times 2$ cm. Technetium-99m methylene diphosphonate (MDP) scan [Figure 3] showed an increased tracer activity in the left proximal femur. He was advised treatment with bisphosphonates as he had pain of moderate severity.

FD is a sporadic disorder characterized by replacement of normal bone with poorly organized fibrous tissue and increased bone resorption.^[1] Monostotic FD is the most common form of FD where rib, skull, and femur are usually involved. In the polyostotic form, skull, mandible, pelvis, and femur are the most frequently affected. Most of the monostotic FD lesions are discovered incidentally, while polyostotic form usually presents in childhood and is associated with syndrome like McCune-Albright syndrome (MAS). Patients with

polyostotic FD present with pain, deformities, or pathological fractures.^[2,3]

Computerized Tomography (CT) is useful for assessing complex skeletal anatomy like face, pelvis and spine. MRI allows differentiation of FD from a cystic lesion and bone scintigraphy demonstrates the extent of disease. Differential diagnoses include nonossifying fibroma, aneurysmal bone cyst, adamantinoma, giant cell tumor, and low-grade central osteosarcoma. Bisphosphonates are used to manage FD in patients with significant pain.^[2]

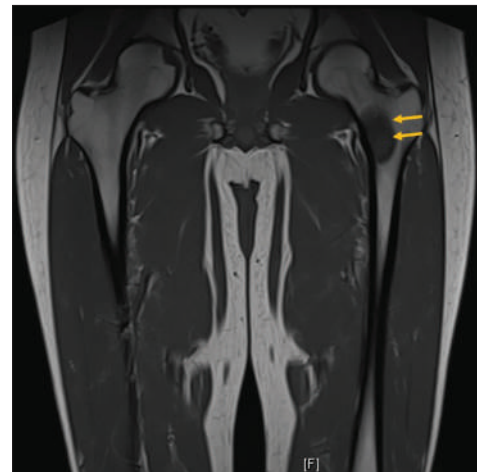


Figure 2: MRI of pelvis

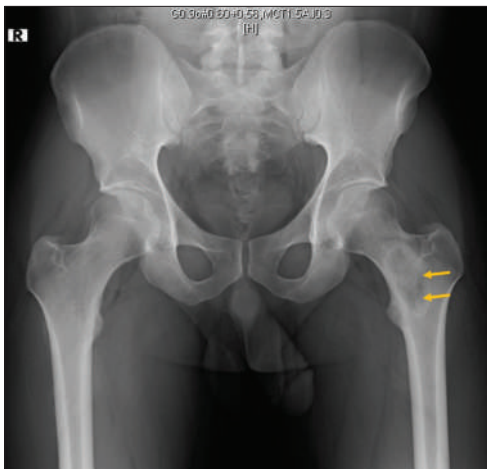


Figure 1: Plain radiograph of pelvis

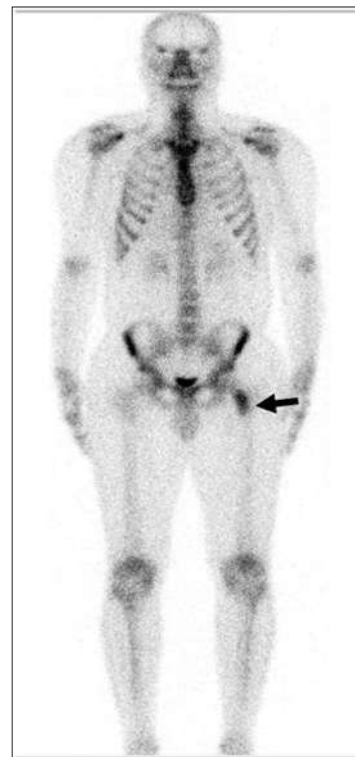


Figure 3: Bone scintigraphy

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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