

Clinical Quiz

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Primary synovial chondromatosis of hip

Clinical Presentation

A 17-year-old female patient presented to the orthopedic (OPD) with complaints of pain in her left hip and difficulty in squatting for the last 3 years. The movements at the left hip were normal except for terminal restriction of internal and external rotations. There was no history of trauma. Radiograph of the pelvis and magnetic resonance imaging (MRI) of the left hip was performed (Figures 1 & 2).

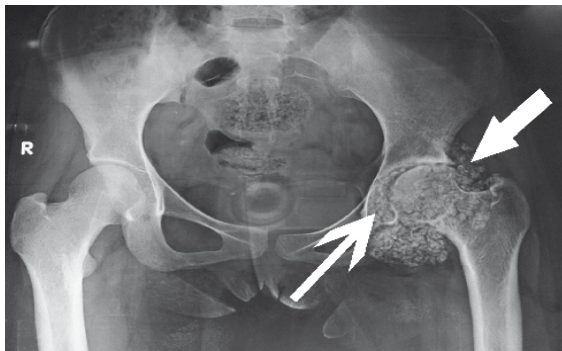


Figure 1 - Radiograph of the pelvis shows multiple radio-opaque loose bodies of variable size in the left hip (thick arrow) with widened infero-medial joint space and mild irregularity of left femoral head (thin arrow).

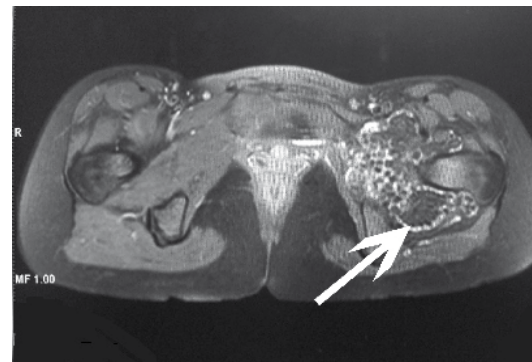


Figure 2 - The magnetic resonance imaging shows lobulated homogenous intermediate intra-articular altered signal intensity in left hip with multiple calcified loose bodies (arrow) with post-contrast enhancement suggestive of synovial thickening.

Questions

1. What are the features seen on the radiograph and MRI?
2. What is the diagnosis?
3. What is the management?

Clinical Quiz

Answers

1. Radiograph of the pelvis shows multiple radio-opaque loose bodies of variable size in the left hip with widened inferomedial joint space, and mild irregularity of left femoral head (Figure 1). The MRI shows lobulated homogenous intermediate intra articular altered signal intensity in left hip with multiple calcified loose bodies with post contrast enhancement suggestive of synovial thickening (Figure 2).
2. This 17-year-old female patient has primary synovial chondromatosis of the left hip. Diagnosis is usually based on clinical presentation, and radiological examination. Most patients with primary synovial chondromatosis of the hip present with long standing hip discomfort in absence of systemic features and history of trauma. Imaging modalities reveal multiple radio-opaque loose bodies of variable size in the hip as was seen in this patient (Figures 1 & 2).
3. Synovial chondromatosis does not resolve spontaneously and gradually leads to degenerative osteoarthritis, joint subluxation, and bursitis. Therefore, loose bodies must be removed early to arrest damage to articular surfaces.^{2,3} It is contentious whether to carry out total synovectomy with excision of all communicating bursae, as recurrences are common irrespective of the degree of excision.^{1,2} Consequently, many authors favor taking away of all loose bodies with subtotal synovectomy.

Discussion

Primary synovial chondromatosis of the hip is an uncommon, benign condition of unidentified etiology notorious to cause articular damage, osteoarthritis, and in some cases malignant transformation.^{1,3-5} Patients present with gradual onset of hip pain, restriction of movement, and in some cases with clicking and locking of hip joint.¹⁻³ Diagnosis is made by plain radiographs but can be carried out early by MRI and CT. Detection of disease on plain radiographs depends upon the calcification of loose bodies, which usually calcify late, and accordingly a plain radiograph detects the disease late. The aim of treating synovial chondromatosis is to check recurrence and to delay development of secondary joint damage. The disease does not resolve spontaneously and gradually leads to degenerative osteoarthritis, joint subluxation, and bursitis.

Acknowledgments

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