

Hip pain in a young adult

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A 28-year-old woman presents with a long history of groin pain that is exacerbated by activity. What are the diagnoses to consider and how should she be investigated?

Case presentation

A 28-year-old woman of normal build presents with a five-year history of right groin pain that is exacerbated by sporting activity and long walks. The pain radiates down the inner thigh and occasionally she has knee pain. There are times when she feels that her hip 'clicks' during sport. Rest tends to relieve her symptoms.

On examination, she walks with a normal gait. The main positive clinical finding is pain on flexion, adduction and internal rotation of the right hip. The remainder of her examination is unremarkable.

Differential diagnoses

The history and examination in this case suggest hip pathology. The main diagnoses to consider are:

- hip dysplasia with symptoms related to a labral tear or capsular strain
- early inflammatory arthritis of the hip (such as rheumatoid arthritis or ankylosing spondylitis)
- early avascular necrosis of the hip
- tendinosis or bursitis of the iliopsoas muscle or iliotibial band (snapping hip)

- stress fracture
- referred pain from the abdomen or spine.

Management

The primary investigation required is plain radiography: a standing, weight bearing x-ray of the pelvis in the anterior–posterior view, and a lateral view of the affected hip. In the case described here, the pelvic x-ray demonstrates a shallow right acetabulum with uncovering of the femoral head, which is an example of hip dysplasia (see Figure). The natural history of this hip disorder

is poor if untreated, and the hip will develop osteoarthritic changes within the next 10 years.

For this patient, the treatment of choice for symptomatic adult hip dysplasia is a periacetabular osteotomy to reorientate the acetabulum and provide femoral head coverage. The surgery will relieve symptoms, and will delay or possibly prevent the development of osteoarthritis.

An MRI scan is a valuable tool for investigating hip pain if the cause is not obvious on plain x-ray, such as early avascular necrosis or even a stress fracture in the femoral neck. If inflammatory disease is suspected, blood tests including ESR, rheumatoid factor and HLA B27 are useful.

Keypoints

- Hip pain in young adults that is not related to trauma or sport is unusual. Hip dysplasia with resultant capsular or labral tears should be considered.
- Investigations (including an MRI scan) should be pursued, ideally in a specialist setting. **MT**



Figure. Anterior–posterior x-ray view of the pelvis of a 28-year-old woman with right hip dysplasia. Note the shallow and steep acetabulum.

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