

# <u>411 – Demystifying the Hip</u>

With Steven Bruce and Jon Hutt

#### 1. Introduction

The session focused on the assessment and management of hip pain, featuring an orthopaedic consultant discussing his approach to hip evaluation and treatment. The discussion included a live patient assessment, a review of imaging techniques, and an exploration of common hip pathologies. The aim was to provide practitioners with insights into clinical reasoning, differential diagnosis, and the appropriate use of imaging in managing hip-related conditions.

### 2. Clinical Assessment of the Hip

The consultant emphasised the complexity of hip pain diagnosis due to the overlap between joint-related symptoms and muscular involvement. Key aspects of the hip assessment included:

- **History Taking:** The importance of understanding the patient's activities, onset, and progression of symptoms, as well as associated postural or movement-related pain.
- **Gait Analysis:** Observing foot progression angle, knee alignment, and rotational patterns while walking.
- **Range of Motion Testing:** Identifying limitations, particularly in internal and external rotation, which are crucial in detecting early hip pathology.
- **Strength Testing:** Assessing hip flexors, abductors, and the muscular envelope to differentiate between primary joint pathology and soft tissue dysfunction.
- Palpation & Functional Tests: Evaluating tenderness over muscle insertions and performing provocative tests such as FADIR (Flexion, Adduction, Internal Rotation) for impingement and FABER (Flexion, Abduction, External Rotation) for differential diagnosis.

The patient in the case study presented with symptoms suggestive of both joint and muscular dysfunction, making it a useful example of real-world diagnostic challenges.

## 3. Common Hip Pathologies and Their Clinical Presentation

The discussion addressed several hip-related conditions, including:

- Femoroacetabular Impingement (FAI): A structural issue where excess bone on the femoral head or acetabulum leads to movement restriction and pain, often presenting with reduced internal rotation.
- Labral Tears: Often detected via MRI but not always symptomatic, with a key takeaway being that labral tears are frequently incidental findings rather than primary pain generators.
- **Tendinopathies and Muscular Dysfunction:** Lateral hip pain is frequently caused by gluteal tendinopathy rather than joint pathology, with patients commonly reporting night pain and discomfort while lying on the affected side.
- **Hip Osteoarthritis:** Although not the focus of this discussion, early joint degeneration was considered in the patient case, particularly in relation to subtle cartilage thinning seen on MRI.
- **Stress Fractures:** Rare but important to rule out, particularly in endurance athletes or those with significant loading changes.

The consultant emphasised that accurate diagnosis relies on correlating clinical findings with imaging rather than relying on scans alone.

## 4. Imaging in Hip Diagnosis

The discussion covered the appropriate use of imaging in hip assessment:

- X-rays as the First-Line Investigation: Providing essential structural information, particularly in assessing acetabular shape and femoral head alignment.
- **MRI Scans:** While useful for detecting soft tissue injuries and joint pathology, MRI findings should always be interpreted in the context of clinical symptoms. Over-reliance on MRI can lead to overdiagnosis, especially of labral tears.
- Ultrasound for Soft Tissue Assessment: Dynamic imaging can be useful for evaluating tendinopathies, but was not considered a primary modality for deeper joint pathology.

The consultant advocated for a structured imaging approach, starting with X-ray before progressing to MRI only when necessary.

#### 5. Treatment Considerations

While the session primarily focused on diagnosis, treatment principles were also discussed:

- **Conservative Management:** Strengthening and rehabilitation were recommended as first-line interventions for most non-surgical hip conditions.
- **Injection Therapy:** Used diagnostically to confirm intra-articular hip pathology, with corticosteroid or PRP (platelet-rich plasma) injections considered for specific cases.
- **Surgical Intervention:** Indicated only when conservative measures fail and significant structural pathology is present. The consultant stressed that many patients with hip pain can be managed without surgery.

For the patient in the case study, the recommended approach was structured rehabilitation, alongside further imaging (X-ray) to clarify the structural contribution to symptoms.

## 6. Practitioner Insights and Clinical Takeaways

Key takeaways from the discussion included:

- Hip pain is often multifactorial, requiring thorough assessment rather than reliance on imaging alone.
- Internal rotation restriction is a key clinical marker for intra-articular hip pathology.
- Labral tears, while commonly identified on MRI, do not necessarily correlate with symptoms.
- Soft tissue dysfunction, particularly tendinopathy, is an often-overlooked contributor to lateral hip pain.
- A structured diagnostic approach, starting with history, examination, and Xray, is essential to avoid unnecessary investigations or interventions.

The discussion reinforced the importance of clinical reasoning in hip assessment and highlighted strategies that practitioners can implement in their daily practice.