

FEMORAL ACETABULAR IMPINGEMENT (FAI)

FAI

- Cause of early osteoarthritis of the hip especially in young and active people
- Early pathologic contact between skeletal prominences of the acetabulum and femur that limits physiologic hip range of motion.
- Occurs typically during flexion and internal rotation.

FAI

- Pincer impingement: acetabular cause of FAI
 - Focal or generalized over coverage of the femoral head.
- CAM impingement: femoral cause of FAI
 - Due to an aspherical portion of the femoral head-neck junction.

Mixed: 86% -*Beck et al JBJS Br 2005*

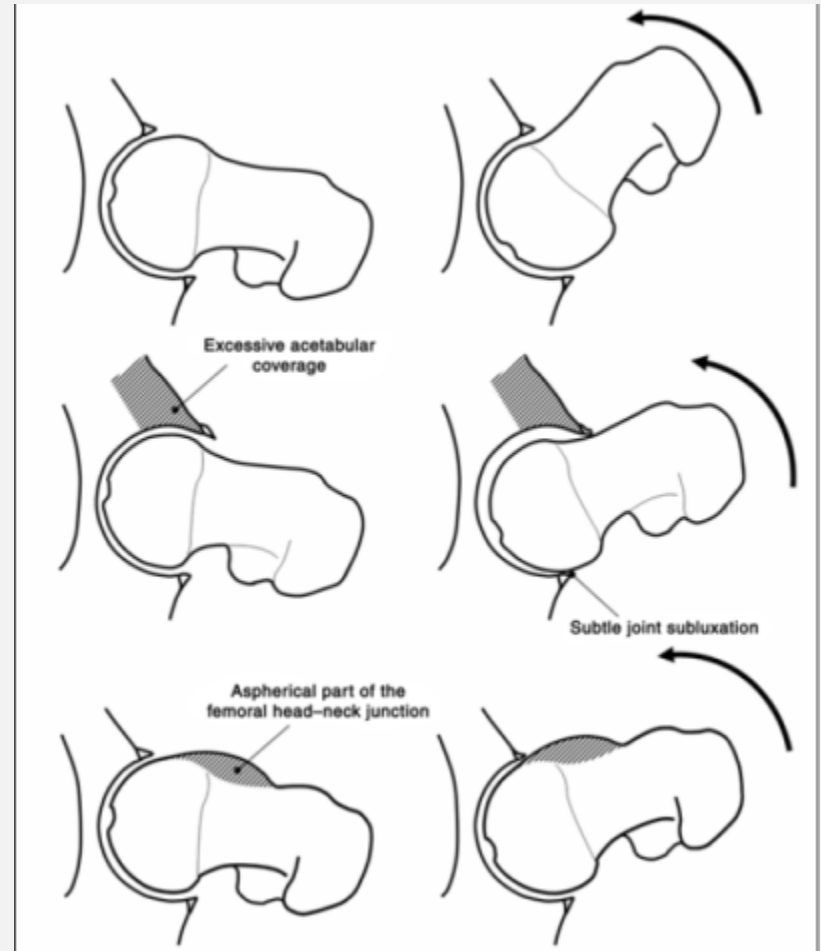


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PREDISPOSING FACTORS

- Some predisposing factors to FAI

- Perthes disease
- Congenital hip dysplasia
- Slipped capital femoral epiphysis
- Avascular necrosis
- Mal-united fractures
- Acetabular protrusion
- Elliptical femoral head
- Retroverted acetabulum
- Prominent femoral head-neck junction



PREDISPOSED AETIOLOGY

- Abnormal anatomy
 - Prominent femoral head neck junction
 - Acetabular over coverage
- Unusual stresses
 - Carpet layers – repeated flexion, adduction, internal rotation

CLINICAL FINDINGS OF FAI

- Young: usually in 20-40's
- CAM type: M:F 14:1 (avg age: 32).
- Pincer type: M:F 1:3 and usually middle age women (avg age: 40)
- Estimated prevalence: 10-15%
- Present with groin pain with hip rotation, in sitting position, or during/after sports
- Typically aware of limited hip mobility long before sx.

CLINICAL FINDINGS FAI

- Diagnosis of FAI syndrome does not depend on a single clinical sign; many have been described and are used in clinical practice.
- Hip impingement tests usually reproduce the patient's typical pain; the most commonly used test, flexion adduction internal rotation (FADIR), is sensitive but not specific. There is often a limited range of hip motion, typically restricted internal rotation in flexion.

TERMINOLOGY FAI

- FAI Syndrome
 - The primary symptom of FAI syndrome is motion-related or position-related pain in the hip or groin. Pain may also be felt in the back, buttock or thigh. In addition to pain, patients may also describe clicking, catching, locking, stiffness, restricted range of motion or giving way.
- Cam morphology
- Pincer morphology

IMAGING FAI

- An anteroposterior radiograph of the pelvis and a lateral femoral neck view of the symptomatic hip should initially be performed to obtain an overview of the hips, identify cam or pincer morphologies, and identify other causes of hip pain.
- Where further assessment of hip morphology and associated cartilage and labral lesions is desired, cross-sectional imaging is appropriate.

MANAGEMENT FAI

- FAI syndrome can be treated by conservative care, rehabilitation or surgery.
- Conservative care may involve education, watchful waiting, lifestyle and activity modification.
- Physiotherapy-led rehabilitation aims to improve hip stability, neuromuscular control, strength, range of motion and movement patterns.
- Surgery, either open or arthroscopic, aims to improve the hip morphology and repair damaged tissue. The good management of the variety of patients with FAI syndrome requires the availability of all of these approaches

PROGNOSIS FAI

- In patients who are treated for FAI syndrome, symptoms frequently improve, and they return to full activity, including sports.
- Without treatment, symptoms of FAI syndrome will probably worsen over time. The long-term outlook for patients with FAI syndrome is unknown. However, it is likely that cam morphology is associated with hip osteoarthritis. It is currently unknown whether treatment for FAI syndrome prevents hip osteoarthritis.

OUTCOMES FAI

- Specifically designed and well-validated patient-reported outcome measures should be used to assess treatment for FAI syndrome. The international Hip Outcome Tool (iHOT), Hip and Groin Outcome Score (HAGOS) and Hip Outcome Score (HOS) are recommended.

TASK

- Review the outcome measures in relation to the FAI.
- Post links on the SHSS4063 news forum.