Adult Hip

Done by: Ahmad Al-Masri
BAU
**SYMPTOMS**

- **Hip girdle pain, due:**
  1. Intra-articular hip pathology (e.g. osteoarthritis of the hip)  
  Pain Radiation?  
  C-sign?!
  2. Extra-articular hip pathology (e.g. abductor tendonitis)  
  Pain site?
  3. Pathology remote to the hip joint (e.g. lumbar spine facet joint osteoarthritis)  
  Pain site? Radiation? Could be MSS or Not MSS

- **Stiffness:**
  - Most marked after inactivity
  - M.c. related to Intra-articular pathology
  - The *earliest* marker of Intra-articular hip pathology is → Loss of internal rotation
  - The pt. will complain that can't put their shoes & socks or can't cut their toe nail

- **Limp:** (gait disturbance)
  - M.c. the gait has Antalgic pattern

- **Snapping or Clicking:**
  - Could be audible or felt by the pt.
  - Could reflex Intra or Extra articular pathology
Signs

Upright V.S. Lying down

Gait:
1. Antalgic gait
2. Stiff leg gait
3. Short leg gait
4. Trendelenburg gait
   Trendelenburg test?!

Look:
ASIS lvl?
Leg position?
Limb length?
LLD? (leg length discrepancy)

Feel:
Looking for extra-articular hip pathology

Move:
Range of motion
Pain on movement
Imaging investigation

- X-Ray
- CT
- MRI  contraindication?!
- Ultra Sound
- Arthrogram +/- local anaesthetic
- Arthroscopy
Osteoarthritis of the hip joint

**Mechanical**

1. Developmental dysplasia of the hip (under-coverage)
2. Femoroacetabular impingement (over-coverage)
3. Perthes disease, slipped capital femoral epiphysis (loss of sphericity)
4. Post-traumatic (loss of congruency)

**Non-mechanical**

1. Avascular necrosis of the femoral head
2. Ankylosing spondylitis
3. Inflammatory arthritis (e.g. RA, psoriatic arthritis & SLE)
4. Primary disorders of cartilage and the synovium (e.g. synovial chondromatosis)
Clinical presentation

• Classically hip OA present as Groin pain + Progressive stiffness
• Early the pain is Activity related but later on it’s more persistent that can cause disturbed sleep.
• M.C. gait is Antalgic, although pt. may present with any gait abnormality.
• Loss of internal-rotation of hip, as loss of movement is progress, pt. may develop both External-rotation & fixed flexion deformities.
• At extreme of passive range of motion the pt. experience pain that reproduces their symptoms. This used to differentiating from intra or extra-articular sources.
Radiological investigations

• X-Ray

We look for:
1) loss of joint space (due to hyaline cartilage loss)
2) osteophyte formation
3) subchondral sclerosis
4) subchondral cysts.
Management

Conservative:
symptom management & modification of activity

Operative:
Total hip arthroplasty most frequent treatment for end-stage post-traumatic
Hip Fractures

- defined as fractures that occur between the articular margin of the femoral head to 5 cm below the lesser trochanter.

- subdivided into
  1. intracapsular fractures (damaged blood supply to femoral head more common)
  2. extracapsular fractures.
     a. pertrochanteric.
     b. subtrochanteric.
Garden Classification of Hip Fractures

**Garden stage I:** undisplaced incomplete, including valgus impacted fractures

**Garden stage II:** undisplaced complete

**Garden stage III:** complete fracture, incompletely displaced

**Garden stage IV:** complete fracture, completely displaced
Common hip fractures type

- Femoral neck fracture
- Intertrochanteric fracture
- Femoral shaft fracture
Management.

• Skin traction, or the application of a Thomas splint, can be useful in subtrochanteric fractures as an adjunct to pain relief and nursing care.

• Reduction and fixation of fractures in the elderly patient is not recommended due to risk.

• In femoral neck fracture Garden I & II → Dynamic hip screws

• In femoral neck fracture Garden III & IV → Hemiarthroplasty

• The unavoidable immobilization that ensue, poses a very high risk for DVT & PE thus Post-op Anticoagulation is recommended.
Posterior dislocation

• usually occurs when force is applied to the knee, commonly dashboard injury.

• Clinical presentation:
  Affected leg is shortened and lies in an adducted, internally rotated and slightly flexed position.
  On AP X-ray the femoral head is seen to be high-riding.

Not Externally like Fracture