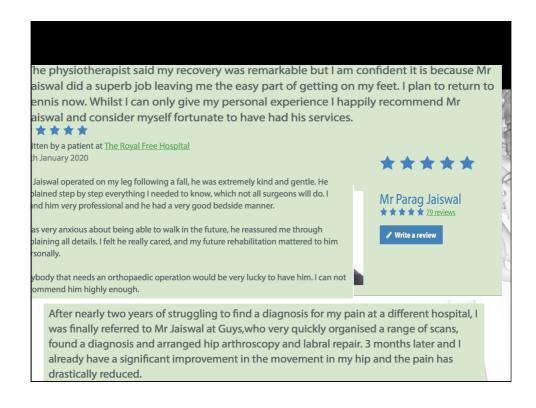


Who Am I?

2007 –	Academic Clinical Fellow/Trainee Stanmore Rotation
2007- 14 –	Thesis on cartilage injury in knees – prizes & publications
2014 -15 –	Joint Reconstruction and Sports injuries in Calgary, Canada
2015 – 16 -	Hip Fellow, Frimley Park Hospital
2016 – 18 -	Locum Consultant Guy's Hospital
2018 -	Travelling Fellowship, Philippon-Steadman Clinic, Vail, Colorado
2019 -	Hip & Knee Surgeon with special interest in Young Adult Hip Disorders and Sports Injuries



Aims/Objectives

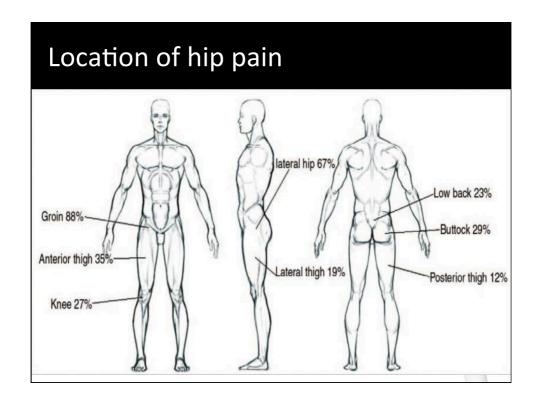
- Know the differential diagnosis of young adults with groin/hip pain
- Know the key features in history
- Focused examination technique
- How to manage initially
- · When to refer

Introduction

- Hip pain in young adults (16-55) not normal
- Imaging studies might not reveal any abnormalities (especially XRs).
- Research & advances in surgical techniques has improved our understanding of causes of hip pain in young adults and has identified new treatments

How do patients present?

- Anterior groin pain most common presenting complaint
- · Related to hip movement
- Pain unrelated to hip position more likely due to non-orthopaedic causes



Differential Diagnosis of Hip pain in Young Adults

Orthopaedic

- FAI (hip impingement)
- Hip dysplasia
 tear
 tear
 tear
 tear
 tear
- OA
- Stress fracture
- AVN
- Bursitis/tendinopathy
- Acute fracture
- Lumbar radiculopathy

Non-orthopaedic

- · Inguinal Hernia
- Gynaecological conditions
- Inguinal lymphadenopathy
- Gonadal tumour
- Vascular claudication

Anterior Groin Pain suggestive of labral injury

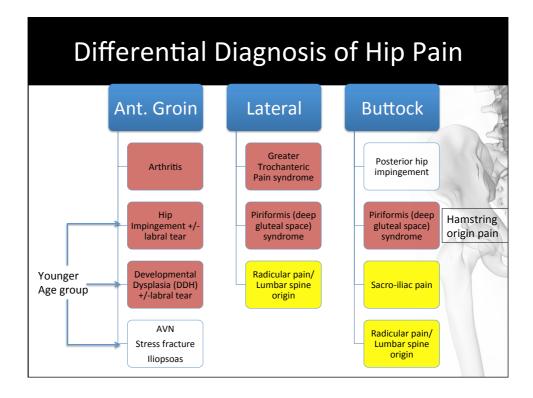
- Sharp/pinching: Knee-like
- After period of increased/unaccustomed activity
 - Or begin insidiously
- Pain usually related to activity initially
 - Esp deep flexion (e.g. squats/lunges, getting out of low car)
- As symptoms progress standing, walking and sitting can be impaired
- Popping/locking/grinding or catching

Anterior groin pain suggestive AVN/OA/Stress fracture

- Insidious onset
- Worse with weight-bearing activities
- Relieved with rest worsens to constant pain
- · Stiffness & night pain
- Stress Fracture usually associated with overuse/change in type or intensity of physical activity

Medial Groin Pain

- Usually sports related pathology
- Osteitis Pubis
 - inflammation of pubic symphysis seen in kicking sports
- Adductor injuries/tendoinopathy
 - Pain inner thigh +/-tenderness
- · Sportsman hernia/Gilmore's groin
 - Injury to insertion of abd muscles to pelvis
 - Worse on twisting movements and on coughing



Questions to ask – Red Flags

- Is pain preventing sleep at night?
 - AVN/OA/potential tumour
- Unable to weight-bear?
 - Stress fracture/tumour/infection
- History of trauma (neglected during COVID)?
 - Acute: fracture
 - Previous: non-union/malunion or AVN
- Needs urgent imaging
- · Recent increase in weight-bearing activities?
 - Stress fracture: urgent referral

Other important questions

- Pain on sitting for extended periods?
 - Labral irritation
- History of childhood problems
 - Risk factors for FAI or OA
- Steroids or excess alcohol?
 - AVN
- Pain in other joints or constitutional symptoms
 - Inflammatory arthritis

Focused Hip Examination

- Look
 - C-sign
 - Limp
- Feel
 - GT
 - Adductor tendons
- Move
 - Supine Log roll
 - Resisted SLR
 - Loss of IR
 - FADIR test



www.londonhipknee.co.uk Mr P. K. Jaiswal The Young Adult Hip Examination

Soft tissue problems around the hip

- Greater Trochanteric Pain Syndrome (GTPS)
- Deep gluteal space syndrome
- Internal Snapping of Hip

Greater Trochanteric Pain Syndrome (GTPS)

- 1. Trochanteric bursitis
- 2. Gluteus medius and minimus tendinopathy +/- tears
- 3. External coxa saltans (snapping hip)

Presents with:

- Pain over trochanter
- Difficulty lying on side (night pain)
- · Reduced walking distance

History and Examination

- Insidious onset usually.
- 'Overdoing it'
- Usually overweight
- May have stiff spines which alters gait
- Previous THR

- Trendelenburg test + gait
- Lying patient on side and palpation on GT
- Flexion & IR causes pain on the side

MRI for GTPS

- Focused MRI hip is the gold standard
- Excludes other causes
- Picks up dual aetiological causes of GTPS

Non-operative measures

- Activity modification weight loss
- Physiotherapy as described but minimum abductor tendon loading exercises
- (Corticos injections (+/- US guided))
- PRP injections
- Shockwave therapy

Home Training for GTPS

- · Piriformis stretch
- Iliotibial band stretch
- Straight leg raise

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- Wall squat with ball
- Gluteal strengthening

Surgical Interventions

- Bursectomy
- ITB release
- Trochanteric reduction
- Gluteal tendon repair

Open vs Endoscopic

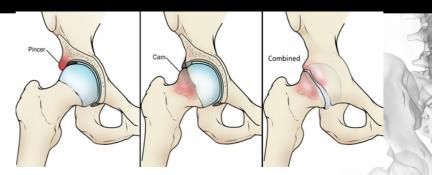
Deep Gluteal Syndrome (DGS)

- Preferred term since Sciatic Nerve (SN) entrapment can occur at a number of locations
- Buttock pain non-discogenic and extrapelvic entrapment of SN
- Typified by inability to sit > 30mins

History

- Often previous h/o trauma
- Symptoms of **sit pain** (SN entrapment beneath piriformis)
- Walking pain lateral to ischium (ischiofem impingement)
- Radicular pain lower back/hip or paraesthesias affected leg

Femoro-acetabular impingment (FAI)



Dutch GP Observational study (31451 patients):

- Active patients aged 15-60 and suffering from groin pain
- 17% diagnosed with FAI
- In sporting individuals, incidence varies from 0.5-18%
- 'Creating awareness of FAI helps in identifying patients that might benefit from FAI treatment'

History & examination

- Groin pain
 - Sharp (knife like) if torn labrum
 - Activity related
- Worse deep flexion
 - Low car
 - Squats/lunges
- Rest pain a bad sign

- Antalgic gait
- Pain on SLR against resistance
- REDUCED INTERNAL ROTATION
- F. AD. IR. Test
- F. AB. ER. Test

Investigations

- Radiographs
- MRI
- CT with 3D protocols
 - Slices through knee
 - Slices through malleoli

Treatment

- Activity modification
- 2 RCTS (FAIT and FASHIon)
- NSAIDs
- Physio and Hip Arthroscopy improved functional scores
- Hip arthroscopy cohort did better
- Physiotherapy
 - Mobilise hip and stretch tight structures
 - Improve soft tissue flexibility and length
 - Core and gluteal strengthening
 - Progress hip muscle, proprioception, joint position sense and functional control of hip

Hip Arthroscopy

- · Labral repair or debridement
- Acetabuloplasty and labral reattachment
- Femoral osteoschondroplasty

Developmental Dysplasia Hip (DDH)

- Spectrum
- In adolescence can present with mechanical groin pain
 - Activity related
 - Limp
 - LLD
 - Clicking and popping
- Frequently associated with labral tears

Investigations • MRI • CT

Treatment

- Conservatively initially
- Refer
 - Hip arthroscopy if CEA $> 20^{\circ}$
 - Peri-acetabular osteotomy if CEA < 18°





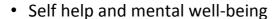
Osteoarthritis of hip

- Conservative
- Thresholds for surgery:
 - Reduced walking distance
 - Night pain
 - Increased/dependency on analgesics
 - Impaired ability to work
- What if your patients are waiting for surgery?

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What does conservative mean?

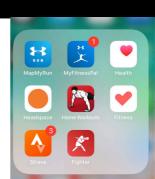
- Lifestyle changes
 - Yoga (e.g. by Adriene)
 - Myfitnesspal
 - Home workouts (muscle strengthening)
 - Mindfulness (Headspace, Calm)

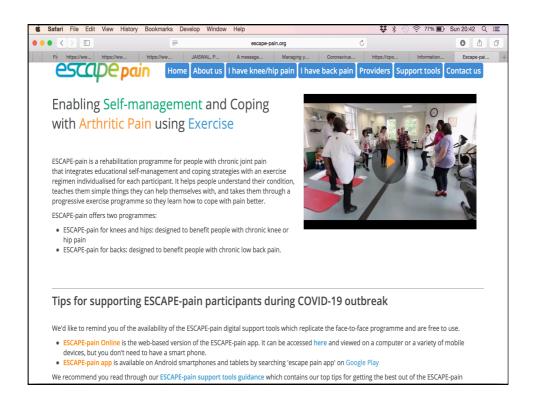


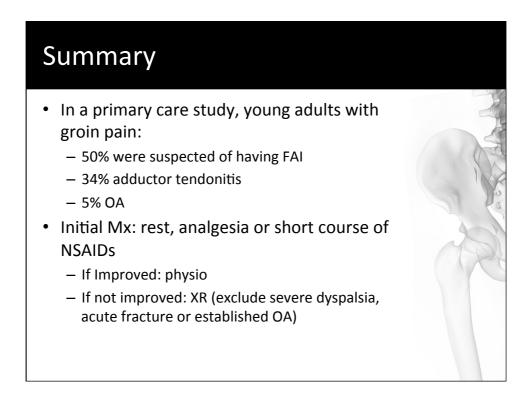
- https://www.mind.org.uk/information-support/ coronavirus/coronavirus-and-your-wellbeing
- Moodgym

Physiotherapy

- ESCAPE program
 - https://escape-pain.org
- Chartered Surveyors of Physiotherapist:
 - https://www.csp.org.uk/conditions/managingpain-home



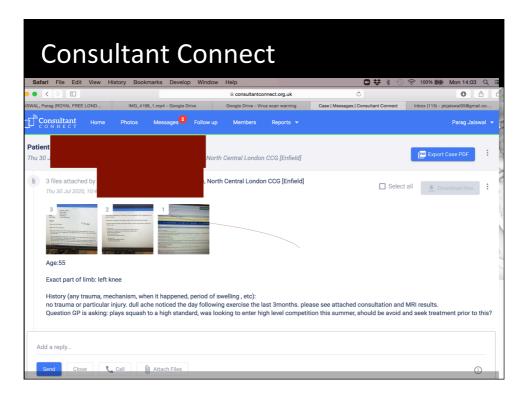




Other Resources Available to GPs

Consultant Connect

- Enhanced advice and guidance
- Network of Orthopaedic Consultants available for telephone advice weekdays 9-8pm and weekends til 5pm
- Messaging service via app, with extremely quick response



Young Adult Hip Clinic - London

Delaying in assessing and treating young adults could mean joint preservation surgery may not be possible

Friday Morning Royal Free Hospital



Queries: admin@londonhipknee.co.uk 0207-4594482

The Royal Free Hospital

- Elective: Friday am
- Fracture: Tues am
- PPU: Tues pm & Ad Hoc

9 and 25 Harley Street

- Friday pm
- Ad hoc

Hospital of St. John & St. Elizabeth

Thursday pm

Highgate Private Hospital

Tuesday pm/evening