



London Sports Orthopaedics

Hips and Knees

Mr Paul Jairaj FRCS Orth

Consultant Orthopaedic Hip and Knee Surgeon

Disclosures

No Financial only educational

Stryker

Smith and Nephew

Symbios

Conformis

Bioventus

Special interests

- Minimal Capsular Incision Hip Arthroscopy Surgery
- Anatomic Anterior Cruciate Ligament Surgery
- Hip and knee Cartilage regeneration Surgery
- Patient specific/customised Total Hip and Partial/Total Knee replacement surgery

The Facts

- 10 million people in UK with arthritis
- 160,000 joint replacements per year in the UK

- High risk population for injury / arthritis
- Physically demanding Job in high risk environment with work expectation to a higher retirement age

- Early pick up essential to avoid above
- There is a solution for everyone

Potential hip pain pathologies

- Femoroacetabular Impingement or OA/RA
- Stress Fracture
- Avascular Necrosis
- Trochanteric Bursitis / Gluteal tendinopathy / Ilio-tibial band syndrome
- Pulled abdominal muscle / Adductor strain / Sports Hernia
- Hip flexor / Psoas / Hamstring tendinopathy
- Osteitis pubis / SIJ pain
- Piriformis syndrome / Ischiofemoral / Deep Gluteal Syndrome
- #NOF / Dislocated THR

Cam Impingement



History

- Single trauma is rare - hyperext or lat blow
- Repetitive trauma common - change in frequency / duration / intensity
- May complain of pain in certain positions or with or after certain activities
- Loss of range of motion or rotation
- Issues with sit / side lye / rotation / flexion activities / click / clunk / giving way
- Suggest to you its just a minor groin strain

Examination

- Gait Trendelenberg stance
- Tenderness - bursae , muscle insertions
- Hernia check
- Spinal exam

- Range of Motion inc FADIR > FABER “Quadrant test” - REFER

Investigations

- Don't believe the Xray
- 3T MRI
- Ultrasound – Guided injections
- CT - Osteoarthritis / 3D Planning

Normal Xray



Se:5
Im:8

[H]

Study Date:11/11/2008
Study Time:09:46:00
MRN:

Acetabular labral tear

Chondral thinning

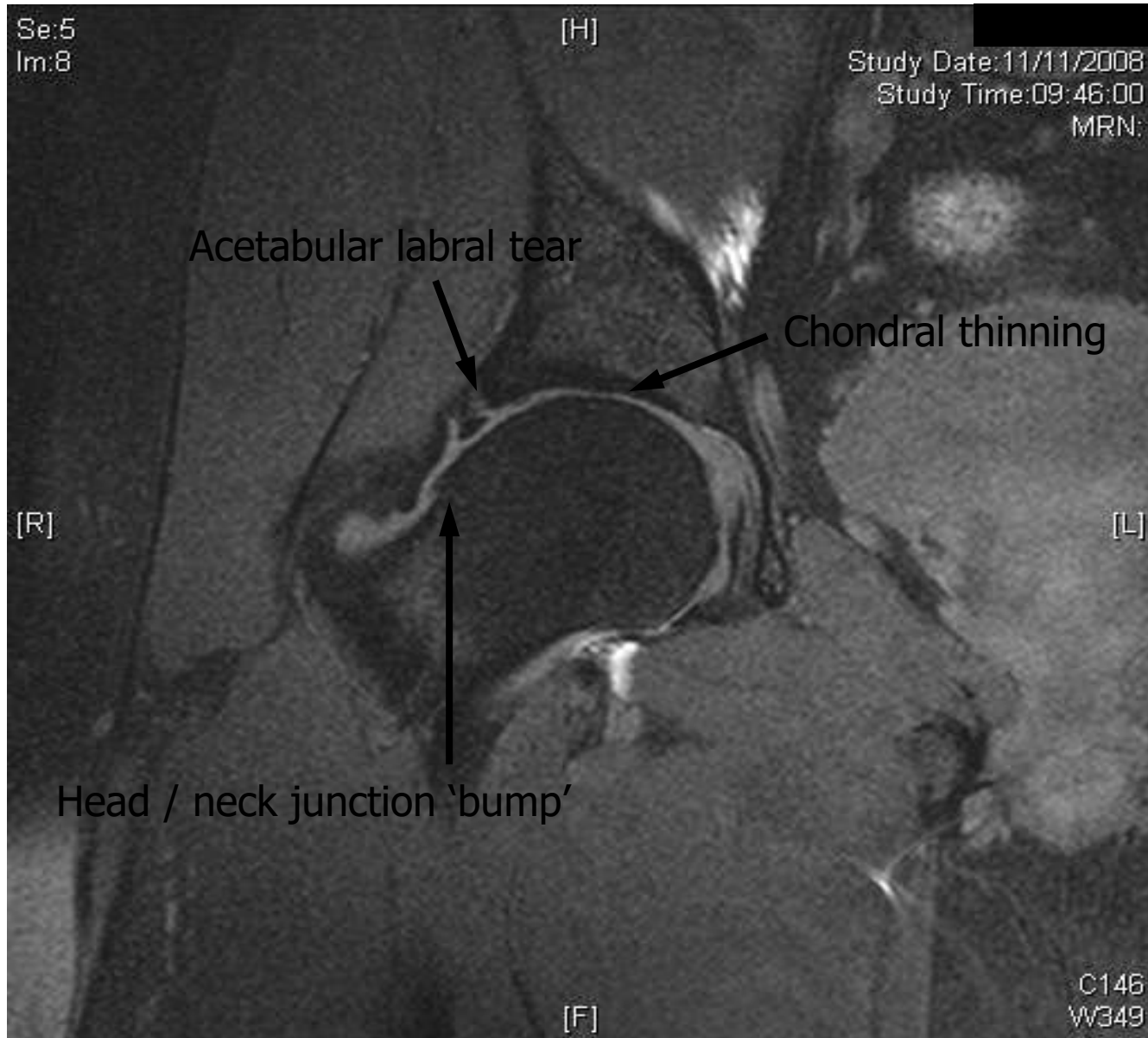
[R]

[L]

Head / neck junction 'bump'

[F]

C146
W349



Treatment

- Rest / NSAIDs
- Physiotherapy - Address Pelvic position - “ Prehabilitation”
- Hip Block injection - Steroid

- Specialist Hip arthroscopic surgeon - early disease
- Specialist Hip replacement surgeon - late disease

Osteoarthritis



Customised Hip Replacement

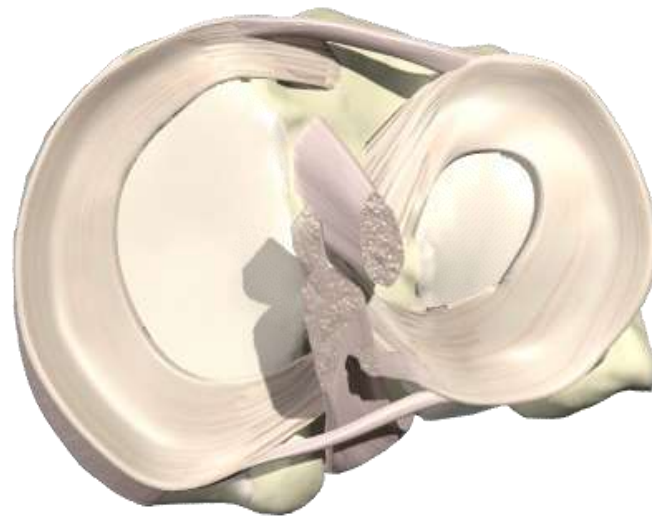
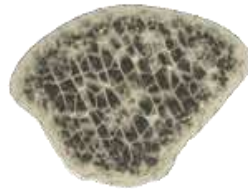


- PRE OP 3D CT ALLOWS 3D TEMPLATING
- 85% WILL HAVE AN IMPLANT MATCH – REST REQUIRE CUSTOM BUILD
- ENHANCED RECOVERY PROGRAM
- LESS INVASIVE MINI-INCISION / POSTERIOR APPROACH
- MUSCLE AND CAPSULE PRESERVING / ROTATOR REPAIR
- RECREATE LEG LENGTH /OFFSET /VERSION
- PREHAB AND REHAB PHYSIO (HIP ARTHROSCOPIC PROGRAM)

Potential knee pain pathologies

- Intra articular = Meniscus / Articular cartilage / Cruciate Ligaments / plica / fat pad / Loose Bodies
- Extra articular structures = Collateral ligaments / Patella or quadriceps tendon / ilio-tibial band / pre patella bursa / muscles

Meniscus



Anterior Cruciate Ligament



Failure to treat

- ACL rupture increases risk of meniscus tear
- Meniscus tear leads to articular cartilage damage
- Articular cartilage damage is or will become arthritis

History

- Single trauma is common – Twist on a fixed foot / giving way or pop
- Repetitive trauma common – change in frequency / duration / intensity

- May complain of pain in certain positions or with or after certain activities
- Issues with
 - twist / squat /loss of full flex/ hyperext / stairs / click – meniscus
 - direction change / giving way / instability – ACL
 - cinema knee / stairs / kneeling / getting up from chair – patella
 - all of above + loss of range / deformity – oa

- Time of swelling < 2hrs post injury - **REFER**

Examination

- SLR - ROM - Hyperextend
- Patella
- Joint lines
- Collaterals

- Cruciates - Ant or Post Drawer / Lachman
- Modified McMurray

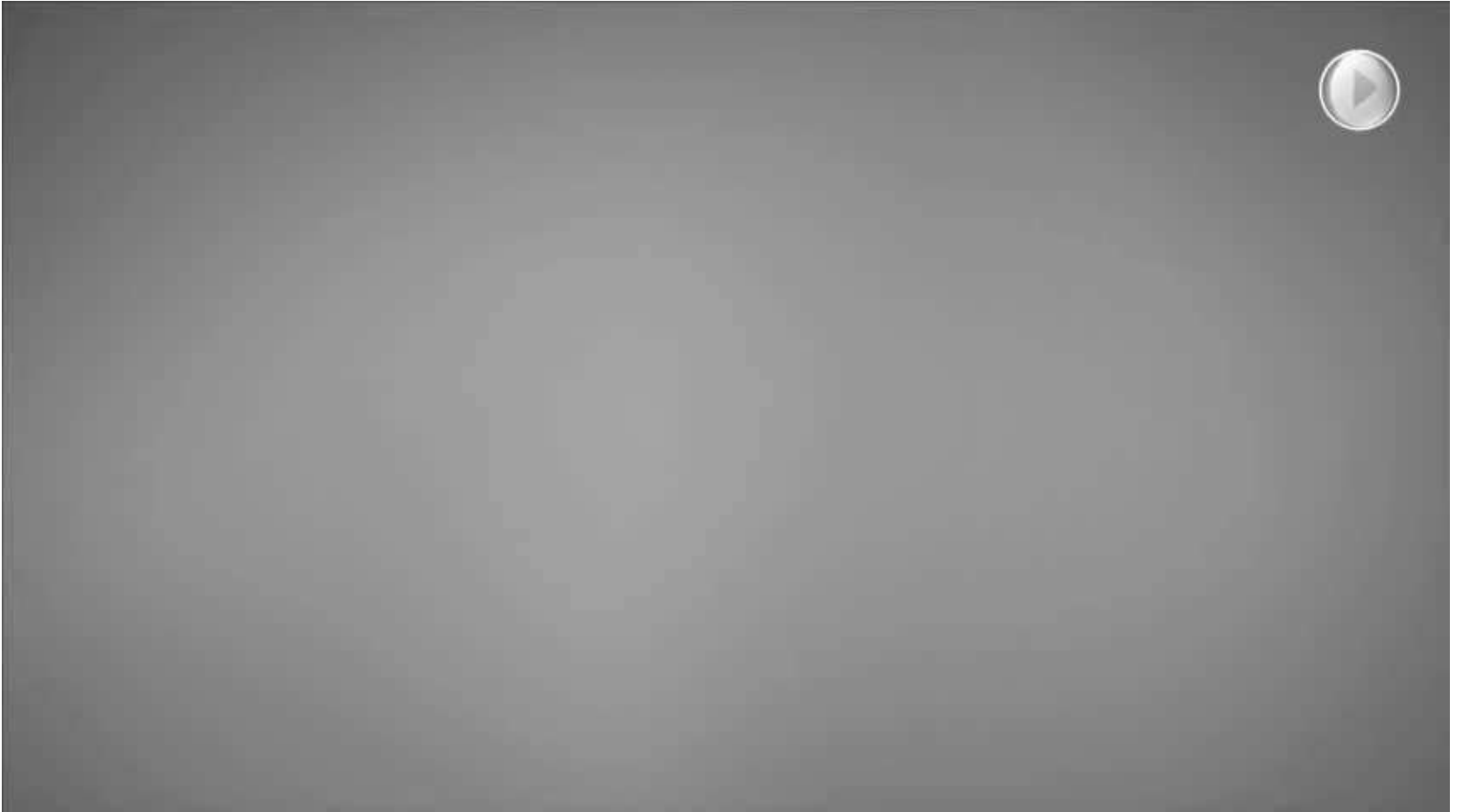
Investigations

- Xray – Fracture or Arthritis
- MRI – soft tissue injury accuracy varies according to structure -
meniscus 95% / labrum 60-85% / articular cartilage 80% / ACL 80% /
other soft tissue 95%
- 3T MR with dGEMRIC inc cartilage mapping

Treatment

- Rest / NSAIDs
- Physiotherapy – “ Rehabilitation”
- Surgery for meniscus /articular cartilage /acl
- Injectables – hyaluronic acid / prp / (stem cell)
- OA – Subchondroplasty / custom replacement

Customised vs off the shelf TKR





London Sports Orthopaedics

Thank You

Paul Jairaj at

London Bridge Hospital

[paul.jairaj@sportsortho.co.uk/](mailto:paul.jairaj@sportsortho.co.uk) pauljairaj@yahoo.com

02074963527