THE HIP IN ATHLETIC GROIN PAIN

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Hip pain is difficult
GROIN PAIN IN ATHLETES

- Hip and groin pain in athletes
  - Adductor-related groin pain
  - Iliopsoas-related groin pain
  - Inguinal-related groin pain
  - Pubic-related groin pain
  - Hip-related groin pain
  - Other causes of groin pain in athletes

Doha agreement meeting on terminology and definitions in groin pain in athletes.

(Weir et al, 2015)
ADDUCTOR RELATED PAIN

- Common
- Rehab
- FAI?
- Or related to FAI?
- Surgery? Tendon or FAI
ILEOPSOAS RELATED PAIN

- Difficult diagnosis
- Injection test
- Rehab (not surgery in the first place)
- Beware of tenotomy in hyperlax patients
INGUINAL RELATED PAIN

- Weakness of the inguinal wall
- Long-standing pain (often)
- Clinical diagnosis (often difficult)
- Ultrasonography / Herniography
- Surgery often needed (limited evidence, though)
- Regional differences
PUBIC RELATED PAIN

- Chronic pain
- Tenderness of Pubic Symphysis
- Associated pain/Sports triad
- Rehab
- Corticosteroid injection?
- FAI?
OTHER - NERVE ENTRAPMENT

- Uncommon
- **Difficult!**
- Differential diagnosis
- Loss of sensation?
- Neuralgic pain?
- Blockade?
- Corticosteroid injection?
- Surgery?
OTHER - SNAPPING HIP

- 2 Types:
  - **Internal** = Usually ILEOPSOAS (or intra-articular)
  - **Loud snapping** at flexion/rotation
  - Caution with tendotomy
  - **External** = Tractus/Fascia Lata, *is seen* at walking (can be felt too)
  - Good results with surgical lengthening of Tractus
OTHER - STRESS FRACTURE

- Unusual
- Not always seen on X-Ray
- MRI/CT better
- Treatment?
- Rest or surgery?
OK – it’s joint related...

- Osteoarthritis
- FAI
  - Dysplasia
  - Chondromatosis
  - Tumor
  - Instability
  - Rheumatic arthritis
  - Other
HIP PAIN

"JOINT FAILURE"
JOINT FAILURE

- Pain during and/or after exercise
- Related to load
- Morning joint stiffness
- Running usually bad, sitting very bad
- Resembles cartilage injury in other joints
- Different causes of joint failure
HIP RELATED PAIN - INVESTIGATION

- Patient history – joint failure?
- Clinical exam – stiffness and pain
- X-ray – pelvis, cam-projection
- MRI?
- Diagnostic blockade
Impingement test
FABER test
FAI - SYNDROME

(Femoro Acetabular Impingement)

- CAM
- PINCER
FAI syndrome is a motion-related clinical disorder of the hip with a triad of:

**Symptoms**
Position related pain, catching, locking, clicking, stiffness, restricted ROM and giving way.

**Clinical signs**
Impingement tests, ROM.

**Imaging findings**
Cam morphology
Pincer morphology

It represents a symptomatic premature contact between the proximal femur and the acetabulum.”

*Warwick Agreement (Griffin et al. 2016)*
CAM
CHONDROLABRAL DAMAGE

- Normal
- Wave sign, softening of the cartilage
- Fissuring between hyaline cartilage and labrum
- Delamination, separation of hyaline cartilage from the bone
- Bare bone lesion
Professional Hockey goalkeeper
NORMAL JOINT
CARTILAGE DAMAGE
CARTILAGE DAMAGE - FAI

labrum

bare bone

large delaminated cartilage flap

femoral head
CAM pre-op
CAM post-op
CARTILAGE DAMAGE
TYPICAL FAI-PATIENT

- History like joint failure/cartilage injury – sitting sign, pain after exercise
- Clinical examination – no palpable pain, sometimes secondary issues (adductor, symphysis)
- Reduced ROM, depending on morphology
- Flexion/internal rotation (anterior impingement test) +/- FABER elicits pain
- Positive injection test
NON-SURGICAL TREATMENT FAI

- Rehab
- Remove impingement situations
- Load management
- Running
SURGICAL TREATMENT FAI

- After failure of non-surgical treatment
- Timing related to competitive season
- Earlier if training is impossible
- Bilateral if needed
- NOT (never) prophylactic
OUTCOMES

iHOT12
Hip outcome measure

HAGOS
Symptoms, Pain, ADL, Sports, Physical activity, QoL

EQ5D
Daily function and health

HSAS
Physical activity scale

Single question
Hip function-VAS

Patient satisfaction (Y/N)
RESULT ONE-YEAR; ATHLETES
RESULT ONE-YEAR; ATHLETES

![Bar chart showing preop and postop results for iHOT12, EQ-5D(x100), EQ-VAS, and VAS-function.](chart.png)
FASHIoN Study Results

- Randomised controlled trial between arthroscopic FAI surgery and Physiotherapy
- 348 pts (171 surg, 177 PT)
- iHOT-33 primary outcome
- Significantly greater improvement in surgery group.

Griffin et. A. (UK FASHIoN): a multicentre randomised controlled trial, LANCET, 2018
TAKE HOME MESSAGE:

- Groin pain in athletes is difficult
- A cautious approach using "clinical entities" is recommended
- Intra-articular pain is a common cause for groin pain in athletes
- Treatment is dependent on diagnosis and timing
- Surgical treatment is often successful
THANK YOU!