

LA PUBALGIE DU SPORTIF: tendinopathie d'insertion des adducteurs « Adductor-related groin pain »

Bordeaux 2012

HUG  
Hôpitaux Universitaires de Genève


swiss
olympic
medical center



Epidemiology

- All sports together: 5 – 18% athletes
- Soccer and hockey: -> 20% during a season
- 68% professional football players with at least one episode of pubalgia
- 50% pubalgia still painful > 20 weeks
- In collective sports, recurrence -> 44%

Importance of a classification, but which one ?

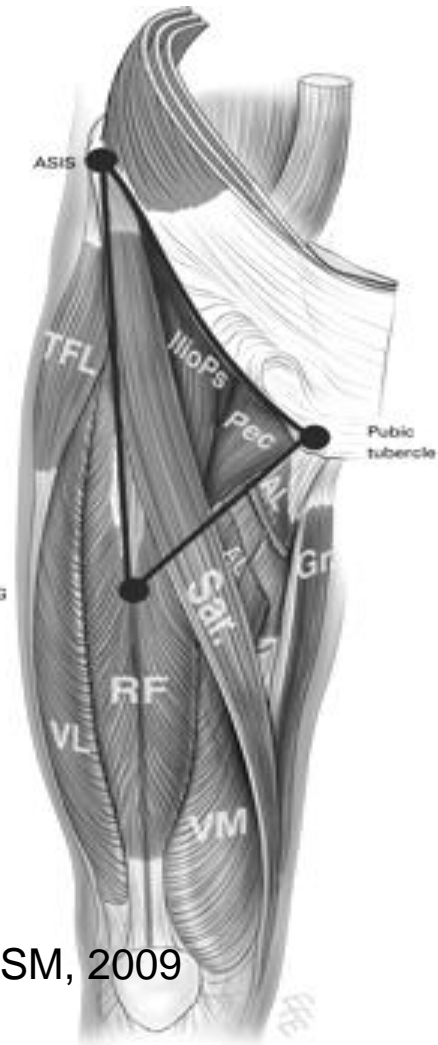
- Topographic classification

(Brunet, Thèse, 1983; JTS, 1984)

- Forme sus-pubienne: « sports hernia »
- Forme pubienne: osteitis pubis
- Forme sous-pubienne: adductor-related injuries

- The groin triangle:

- ASIS
- Pubic tubercle
- The 3G point



Flavey, BJSM, 2009

« Overlapping symptoms »:
or more in 25 to 90%

2

Lovell, Austr J Med Sport, 1995

Classification: time to change ??

- When classification into 12 clinical entities, long-standing groin pain might fall into 3 “primary clinical patterns”:
 - 207 consecutive athletes with long-standing groin pain
 - add-related pain as primary clinical entity in 58%
 - ilio-psoas-related pain in 35%
 - rectus abdominis-related pain in 10% (most of them: secondary and tertiary clinical entity)
 - 42% of patients with at least 2 or 3 clinical diagnosis

Adductors-related groin pain

- Adductors strain
 - acute strain frequently at musculo-tendinous junction
- Adductors tendino(entheso)pathy
 - chronic damage to fibrocartilage enthesis
 - osteitis pubis and adductor enthesopathy mechanically related and coexisting
 - abnormalities in pubic bone on MRI correlates with clinical symptomatic adductor enthesopathy
- Mechanical stress and eccentric loading

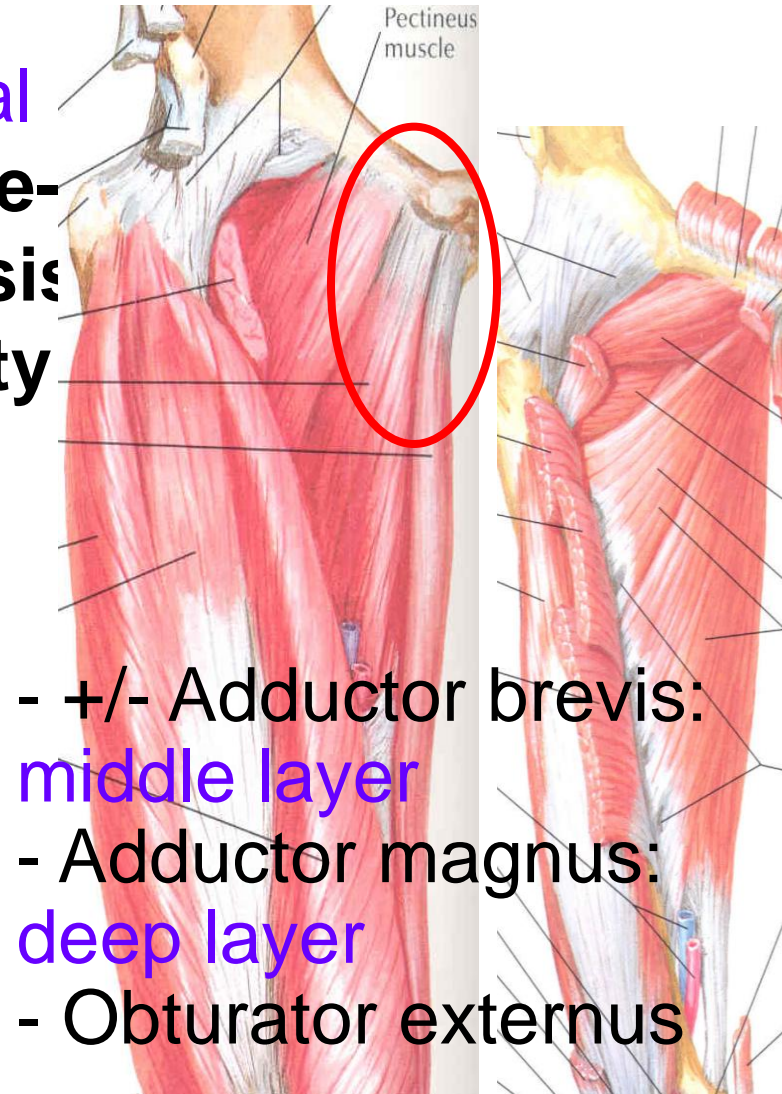
Anatomy

- Pectineus
- Adductor longus
- +/- Cracilis

superficial
layer : pre-
symphysis
continuity

Biomechanical
characteristics:

- single joint course
- very short tendon
- fixed, fibrocartilage pubic insertion
- concerned in 44-60%



Adductor-related injuries

- Clinical examination:
 - For the 3 tests, very high percentage of agreement and kappa values for intra- and inter-observer reliability (>93% et 0.70)



Rehabilitation program

Phase 1

Advice, sport rest, stretching and mobilization

Milestone

Normal ROM and joint harmonization

Phase 2

Core stability exercises and low load hip adduction strengthening

Milestone

Normative values for core stability endurance

Phase 3

Increase in Add strength exercises with eccentric and low pliometry; proprioception; start running

Milestone

No pain during squeeze test and running during 20 minutes

Phase 4

Agility drills and sport-specific exercises

Milestone

Recovery of 80% of estimated performance capacity

Phase 5

Return to field

Results of conservative management

- Randomized prospective trial in athletes with long-standing (median 40 ws) adductor-related pain (*with >60% with osteitis pubis*): active training program vs passive program
 - n=68; 2 intervention groups (AT vs PT); 8-12 weeks of treatment; evaluation at 4 weeks et 4 months
 - excellent and good objective results: 78% in AT group vs 33% in PT ($p<0.001$)
 - **return to sport at same level without pain: 79% in AT group vs 14% in PT ($p<0.001$)**
 - subjective assessment: « much better » by 22 AT vs 13 PT ($p=0.006$)

Results of conservative management

- Open prospective case series in athletes with long-standing pubic bone stress and adductor-related pain:
 - n=27; 12 weeks of treatment: rest, core stabilization and muscle strengthening, graded return to sport; no weight-bearing running activities for 12 ws; f-up -> 2ys
 - 6 months after ttt: return to sport at same level for 89% **in the subsequent season with only 41% pain free** at that time
 - 2 years: return to sport for all athletes, **without symptoms for 81% and 74% at the same level**

Results of conservative management

- Open prospective case series in athletes with long-standing adductor-related groin pain:
 - n=44; 12-16 weeks of treatment: joint mobilization, stretching and active muscle exercises; f-up -> 22 mos
 - return to sport at same level for 77% at 20 weeks without symptoms; 4 athletes did not return to sport
 - return to sport at **same level for 55% at 22 months**, and **26% experienced a recurrence of groin pain**
 - age was not a predictor of recurrent injuries

Local corticosteroid injections

- In competitive athletes:
 - open, retrospective study with 24 athletes, f-up 1yr
 - 2 gr: without and with MRI findings of enthesopathy and symphysisitis
 - 80 mg triamcinolone acetonide under US into adductor enthesis; standardized program with strengthening and stretching exercises
 - at 6 ws, 11 athletes in group 2 were still symptomatic
 - at 1 yr, no recurrence in group 1, but **94% in group 2 had a recurrence** (between 6 and 8 weeks)
 - strong correlation between recurrence of pain and MRI findings

Prolotherapy

- Consecutive case series with 72 elite athletes with abdominal and/or adductors pain (level of evidence: IV)
- Monthly injections (min 2, mean 3) of 12.5% dextrose and 0.5% lidocaine
- Minimal f-up 6 mos, mean of 26 mos
- Improvement of 82% for VAS pain during sport and 78% for Nirschl scale
- 6/72 without improvement
- Return to sport in 66 (92%) athletes in average of 3 mos; **in 19/21 with adductors lesions only**

Platelet rich plasma

- Concentrated amount of platelets with high concentrations of growth factors in the alpha granules (PDGF, TGF β 1, EGF, IGF 1, BMP-12, ...)
- **No literature data** for adductor-related groin injuries or athletic pubalgia

Merci de votre attention

