



Pubalgia Athlete - Longstanding Groin Pain

What is and what is not ?



Marc Bouvard
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Pubalgia Athlete

high incidence
recurrence

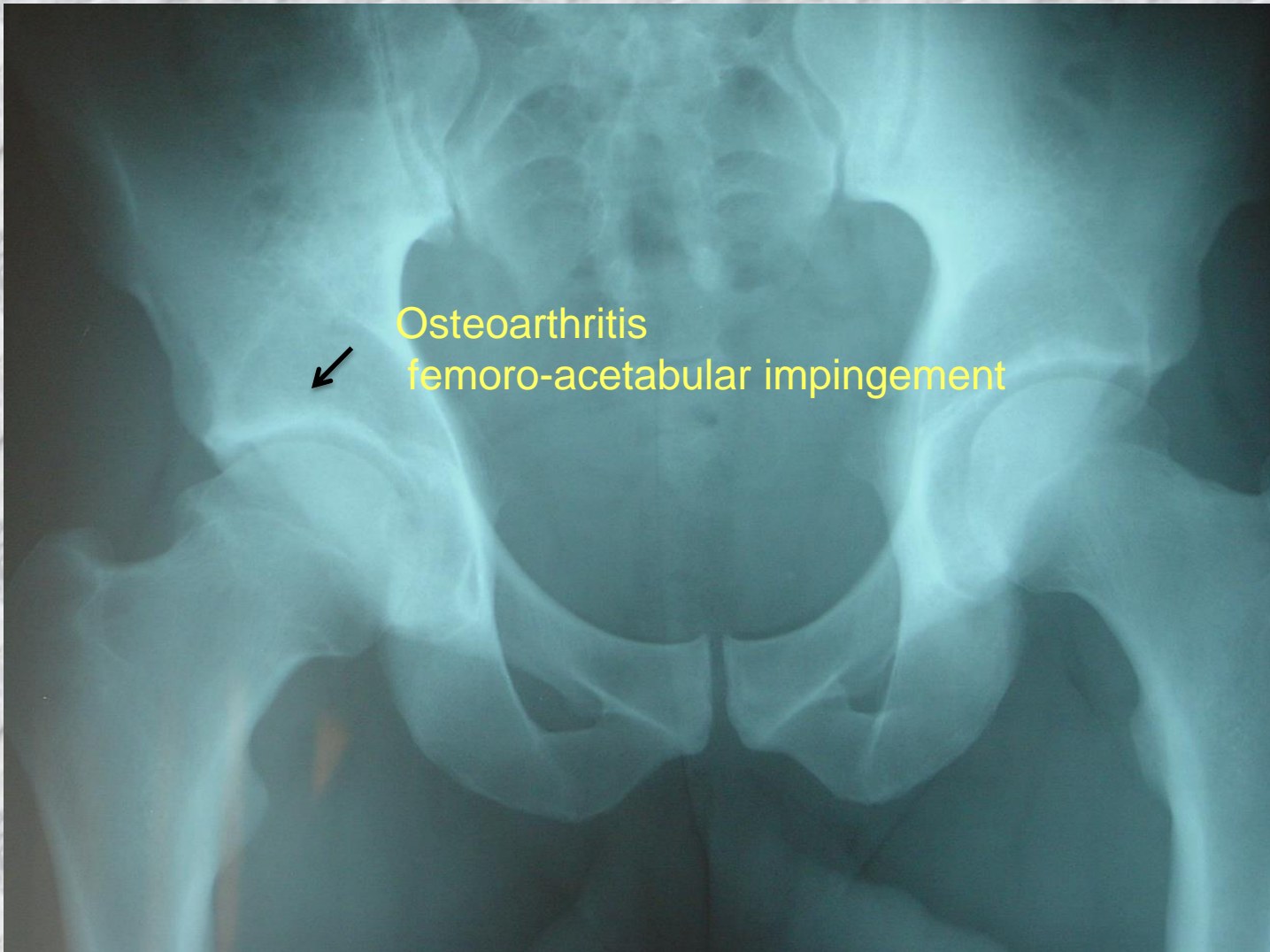
No consensus
nosology,
diagnostic strategy,
treatment





Pubalgia Athlete

What is not



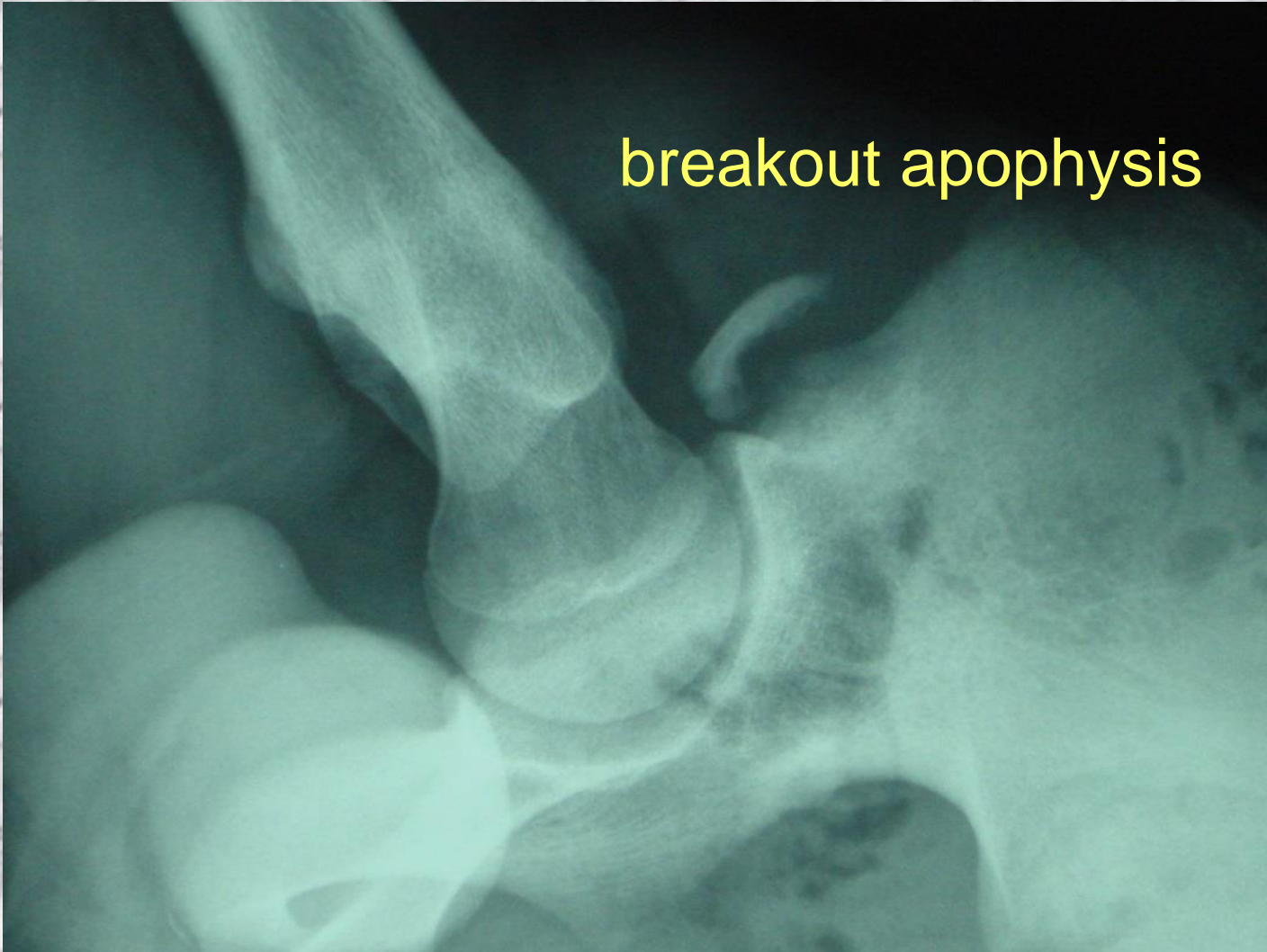


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Pubalgia Athlete

What is not

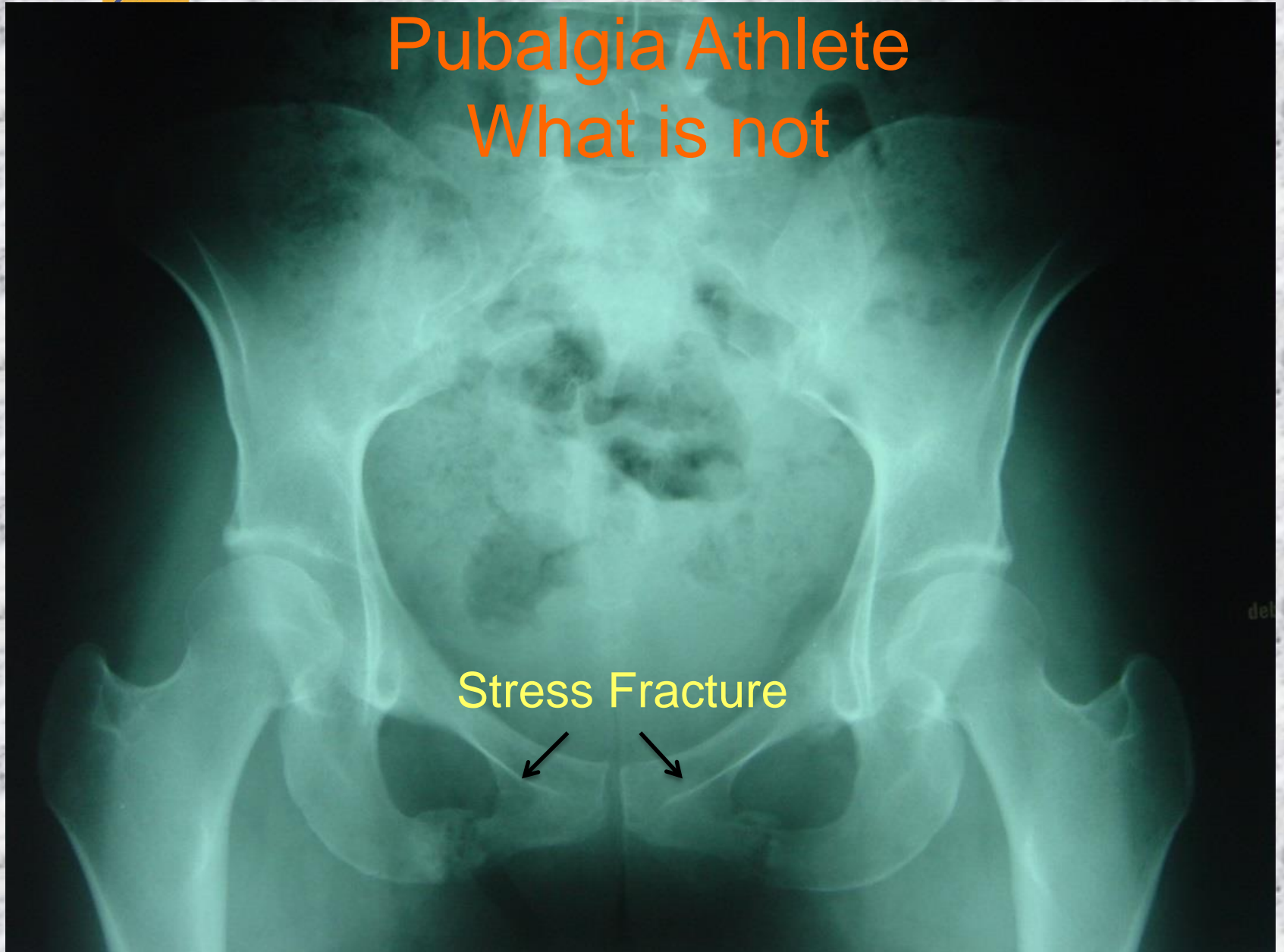
breakout apophysis





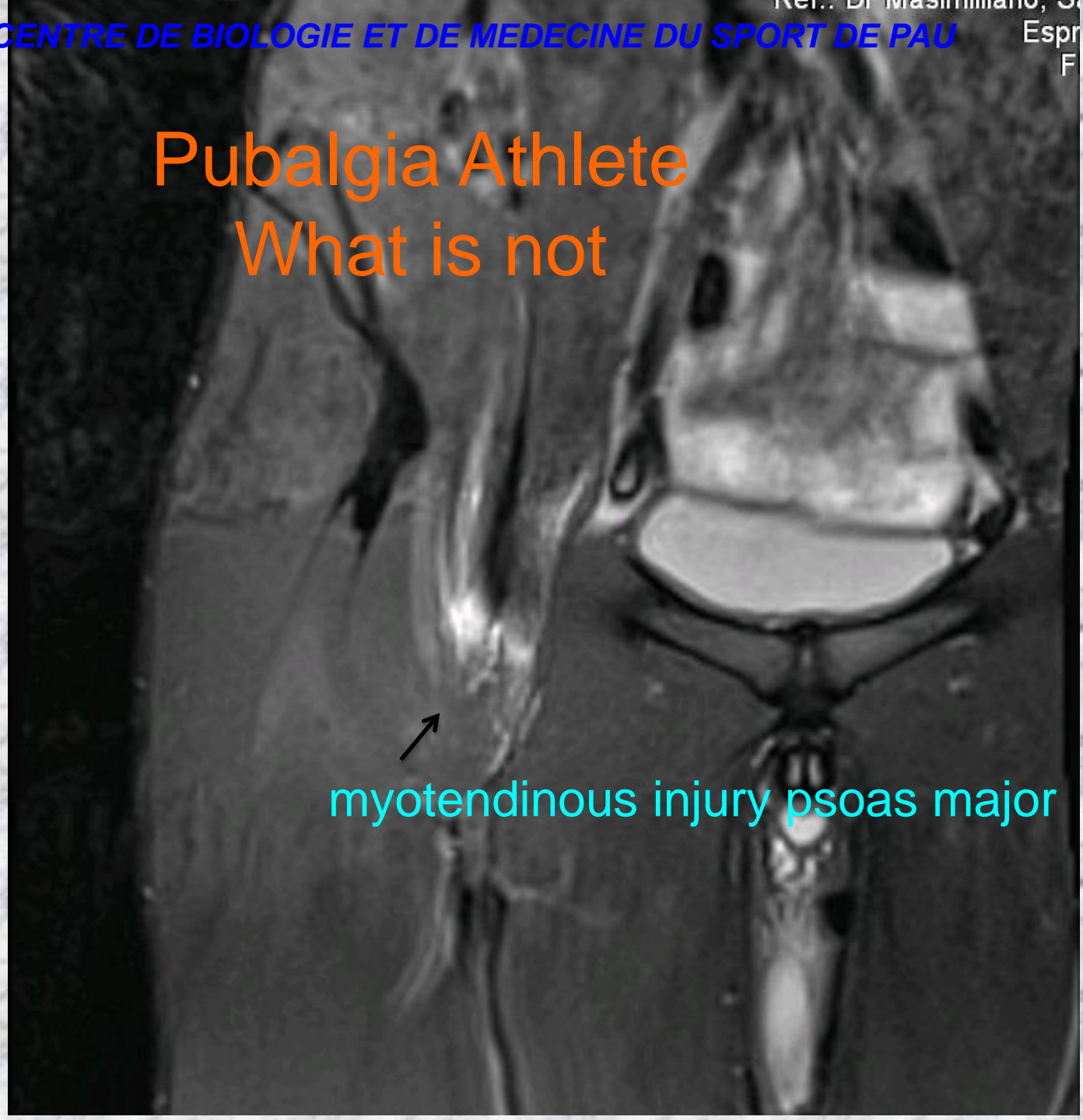
Pubalgia Athlete

What is not





Pubalgia Athlete What is not

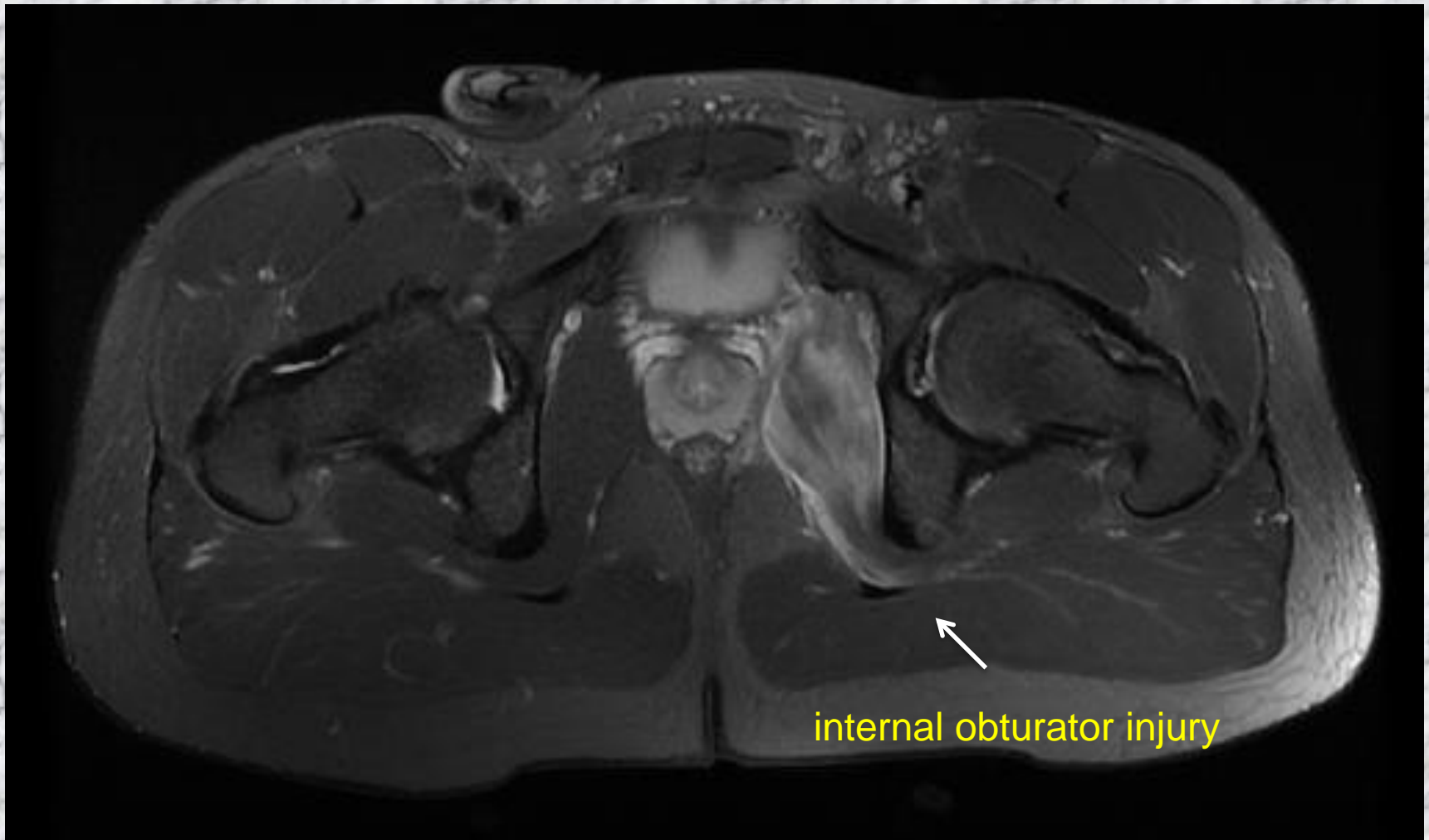


myotendinous injury psoas major



Pubalgia Athlete

What is not





«one disease crossroads public
expressed

by a frequently recurring pain syndrome (Brunet
1983)

related to physical effort (Durey and Rodineau 76);

mainly affects the bone-tendon-muscle chain
(Orchard 2001)

and grouping in isolation or combined four
clinical forms»

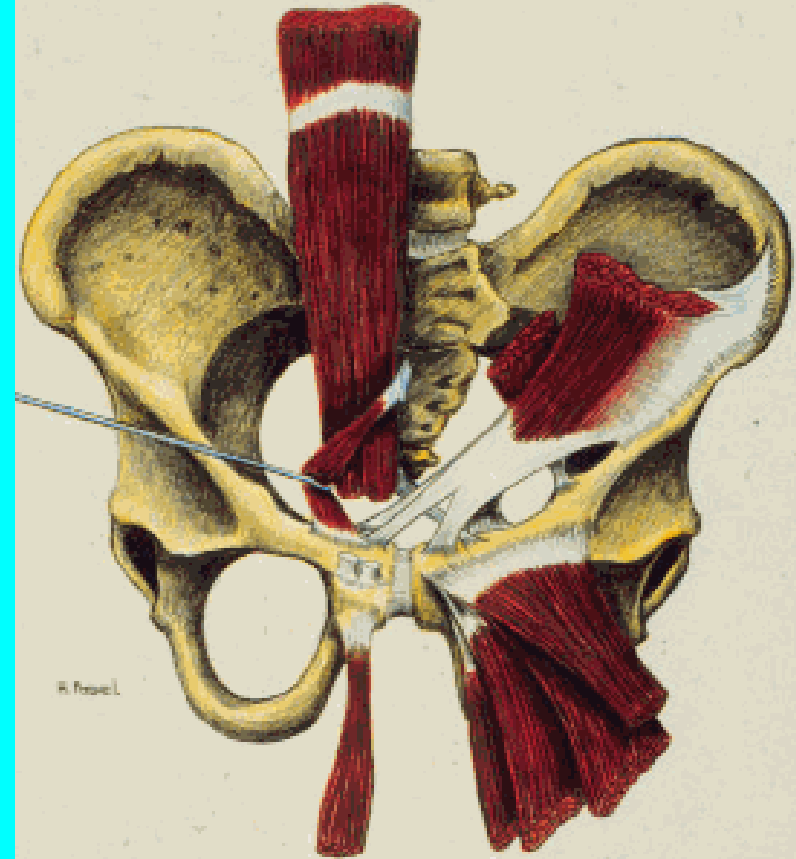
(Bouvard et coll. *J. Traumatol. Sport* 2004,21, 146-163)



I - osteoenthesitis pubis

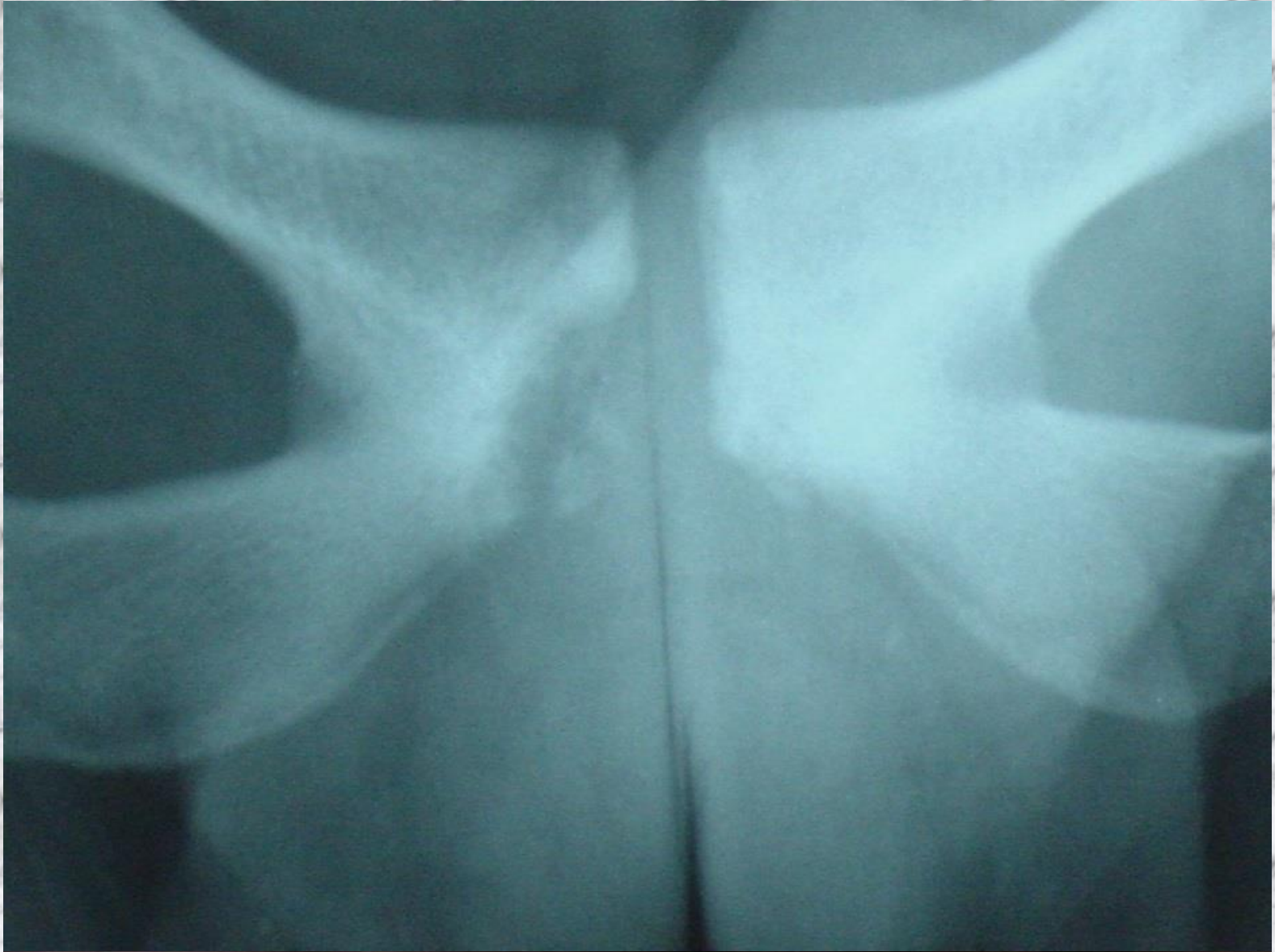
It affects the **symphysis joint** (Vidalin 2008) with radiological signs described previously but also the adjacent bony branches and enthesitis

(Gebothni et Roger 96, Barile 2000, Orchard 2001, Verall 2008)





I - osteoenthesitis pubis



Pubic Symphysis of Teenager (M.Sailly)

Poor scientific literature on the symphysis of the teenager and young athlete pubic pain

young between 15 - 21 years

Elective progressive pain enthesitis Adducteur Longis - Gracilis

Painful muscle testing

Paraclinique

Standard Radiography aspecific

IRM

axial sequense T1 Spir + gadolinium

CT

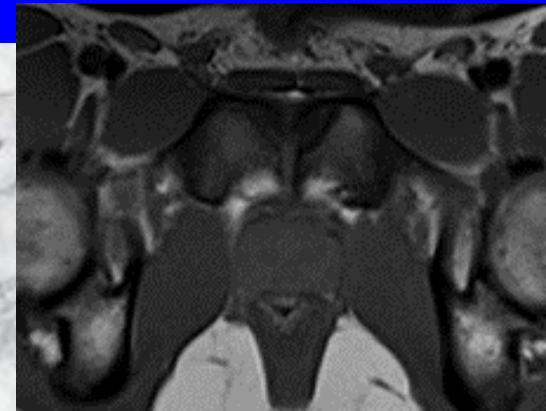
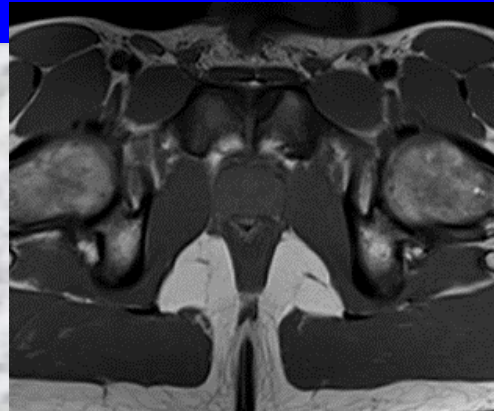
axial section +++

MRI Study

The maturation of the symphysis is between 15 and 25 years

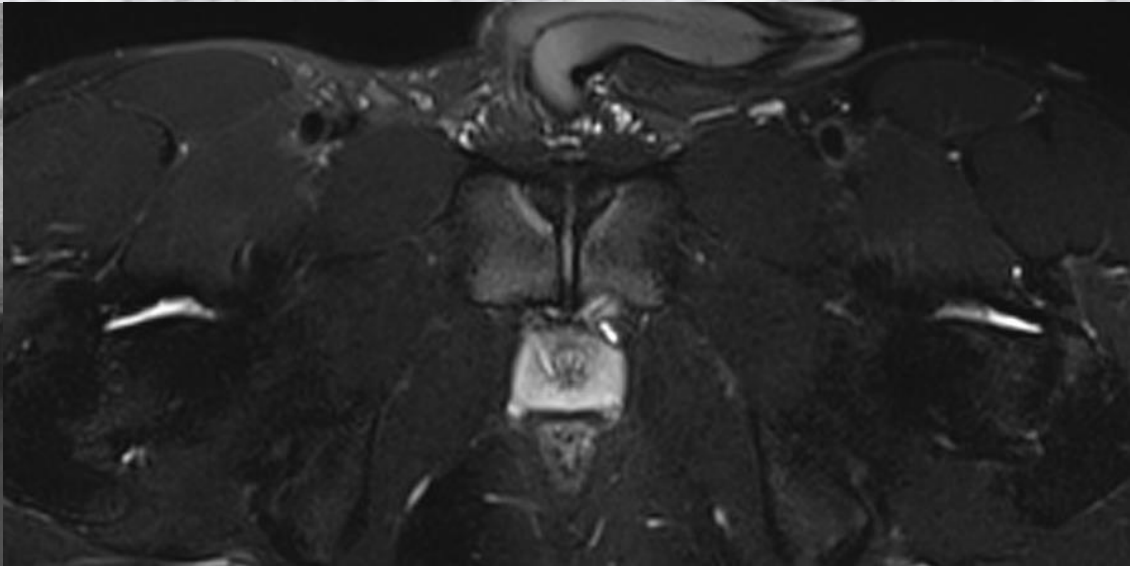
Cadaveric and MRI study of the musculotendinous contribution to capsule of symphysis pubis. Robinson P and all 2006

Ossification of the pelvis- A text book of Radiology and Imaging-3rd-Churchill Livingstone 1980

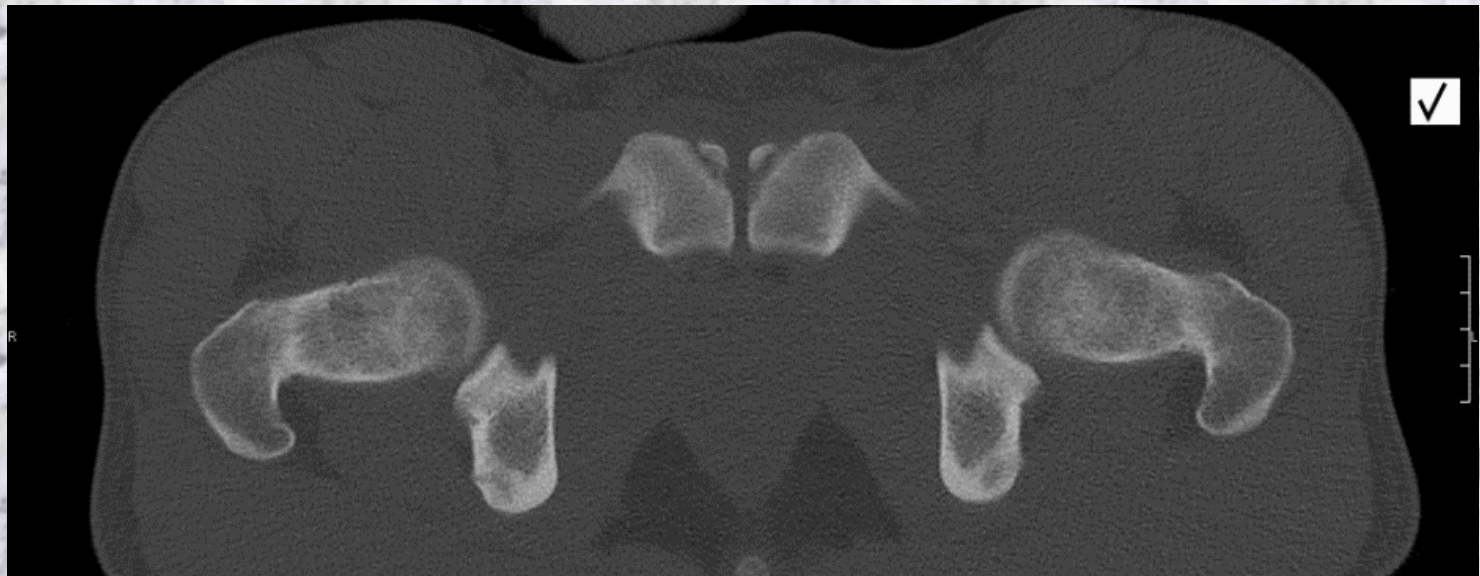




standard radiography



IRM axial T2



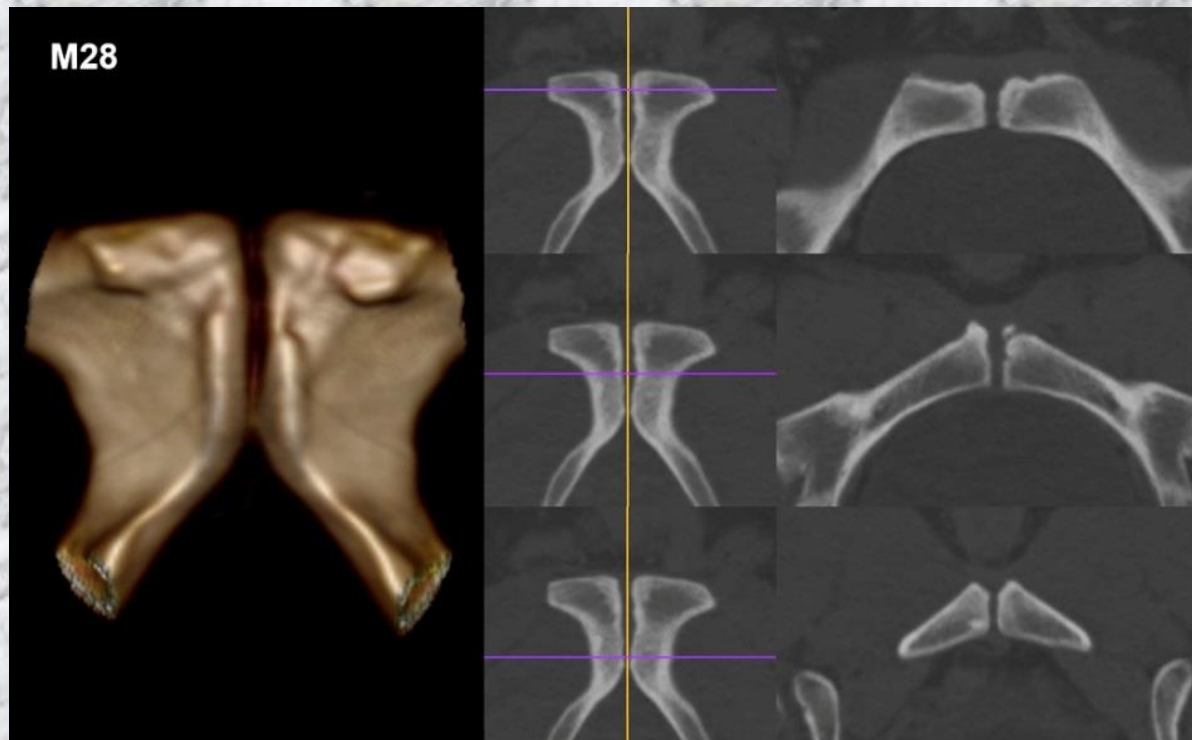
CT axial section

Pubic Symphysis of Teenager

Conclusion:

In young athletes, the maturation of the pubic symphysis is complete at age 25

May be delayed by repeated mechanical stress:
>> Delay or failure of fusion of ossification nucleus



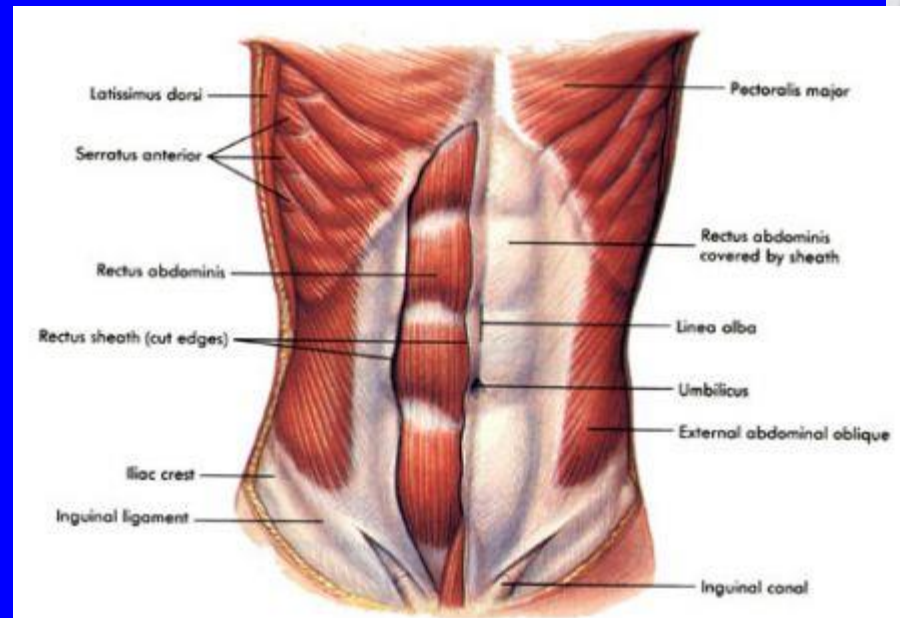


II – tendinopathy of the rectus abdominis

Already cited by Durey and Rodineau in 76 and confirmed by 2 MRI studies

Ghebontni L., Roger B., Christel P., Rodineau J., Grenier P., J.Traumatol.Sport, 1996.

Gibbon W.W., Lancet, 1999.

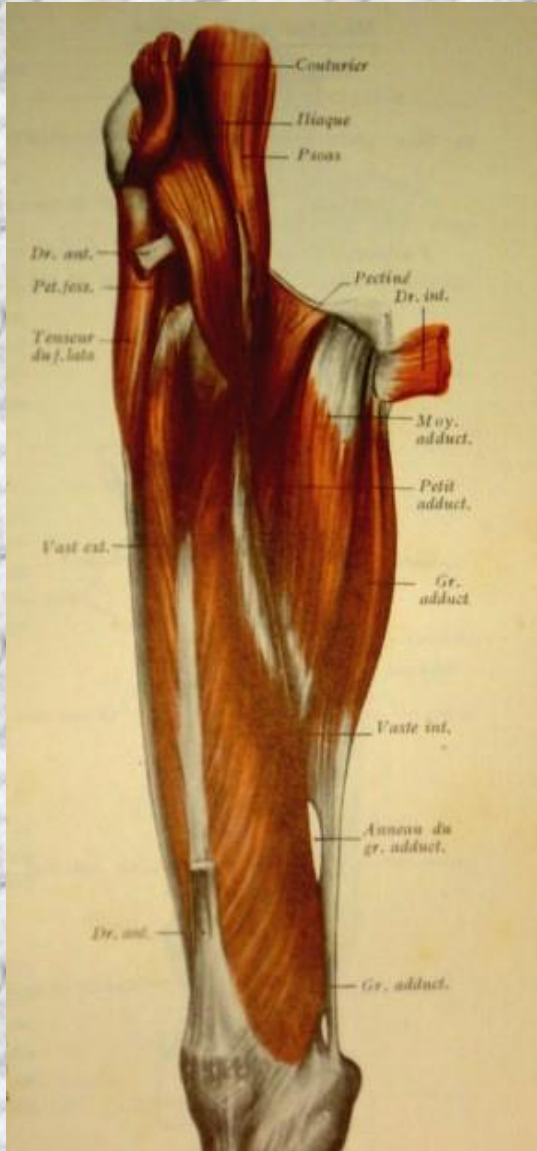




III – Adductor tendinopathy

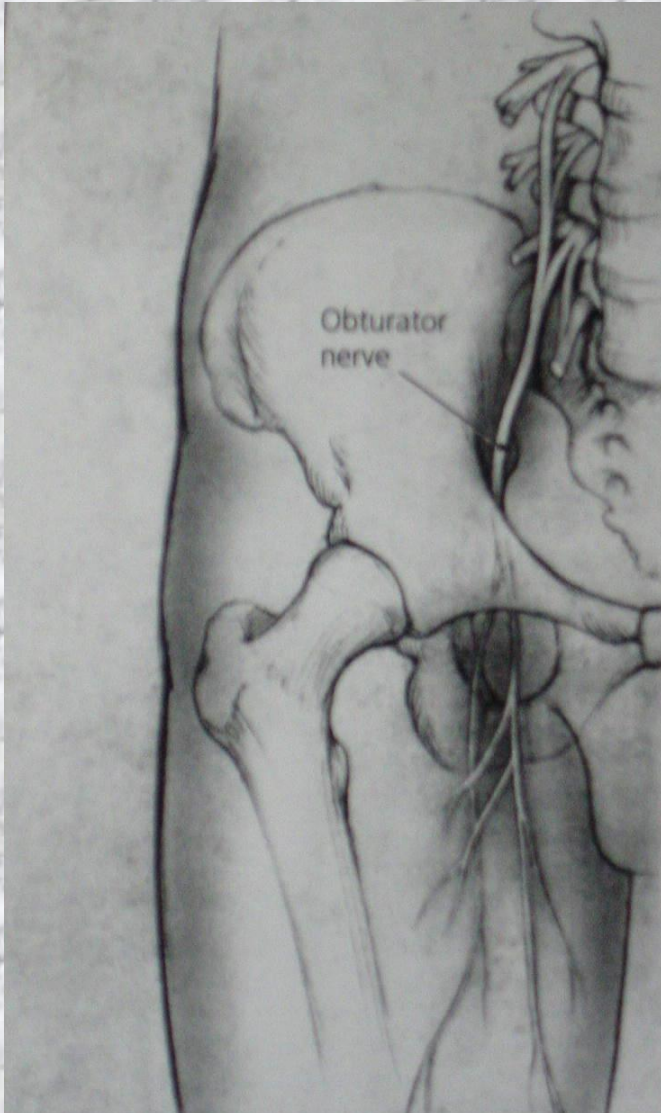
They affect the body or the insertion
The Adductor Longus is most affected

These tendinopathy may be complicated of
tunnel syndrome





III – Adductor tendinopathy



the obturator nerve entrapment syndrome can complicate this tendinopathy

Bradshaw C. et coll., Obturator nerve entrapment. A cause of groin pain in athletes. *Am.J.Sports Med.*, 1997.

(n= 151)

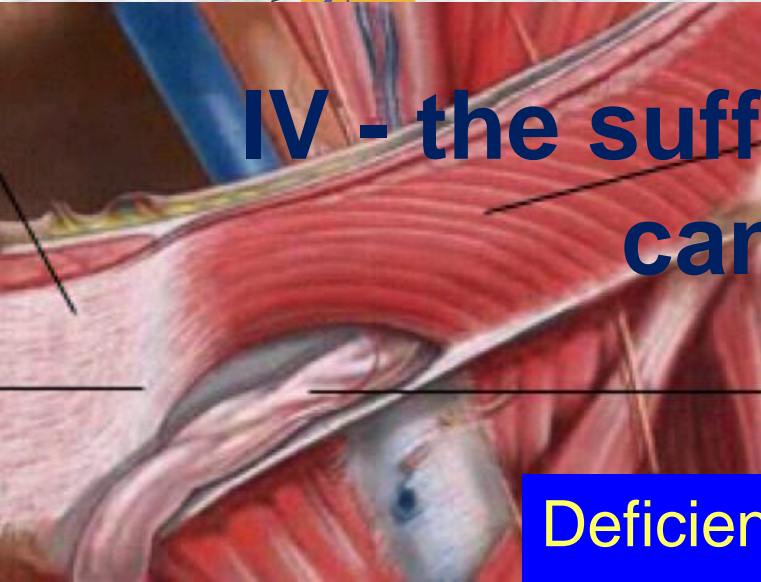
EMG ≥ 3 months and infiltration Test

Siwinski D., Neuropathy of the obturator nerve as a source of pain in soccer players. *Chir.Narzadow Ruchu Orthop Pol.*, 2005.

(n= 52)



IV - the suffering of the inguinal canal(Nesovic)



Deficiency of the posterior wall recognized by many surgeons and 2 types of complementary examinations

(Echography, Orchard J. et coll. Br.J.Sports Med., 1998, Bradley et col. Ann.R.Coll.Surg.Engl., 2003
Herniography, Ekberg O., Radiology 1981. Smedberg SG et coll., Am.J.Surg., 1985.)

- Injury of the anterior wall

(Irschad K. hockey groin syndrome” : 12 years of experience in National Hockey League players, Surgery, 2001)

- Secondary entrapment of Ilioinguinal and iliohypogastric nerves

(Fon 2000, Irschad 2001, Morelli 2001, Orchard 2002, Schorl 2000, Srinivasan 2002, Ziprin 1999)

Infiltration test (Bouvard et Wurmser JTS 2005)



Pubalgia Athlete

This definition "unicist" but confined to the pubalgia is motivated by knowledge of anatomy

frequency of associated forms. They reach 25 to 85% of pubic pain in clinical studies. MRI studies evaluating the forms associated with 15%, but they ignore the damage of the inguinal canal.

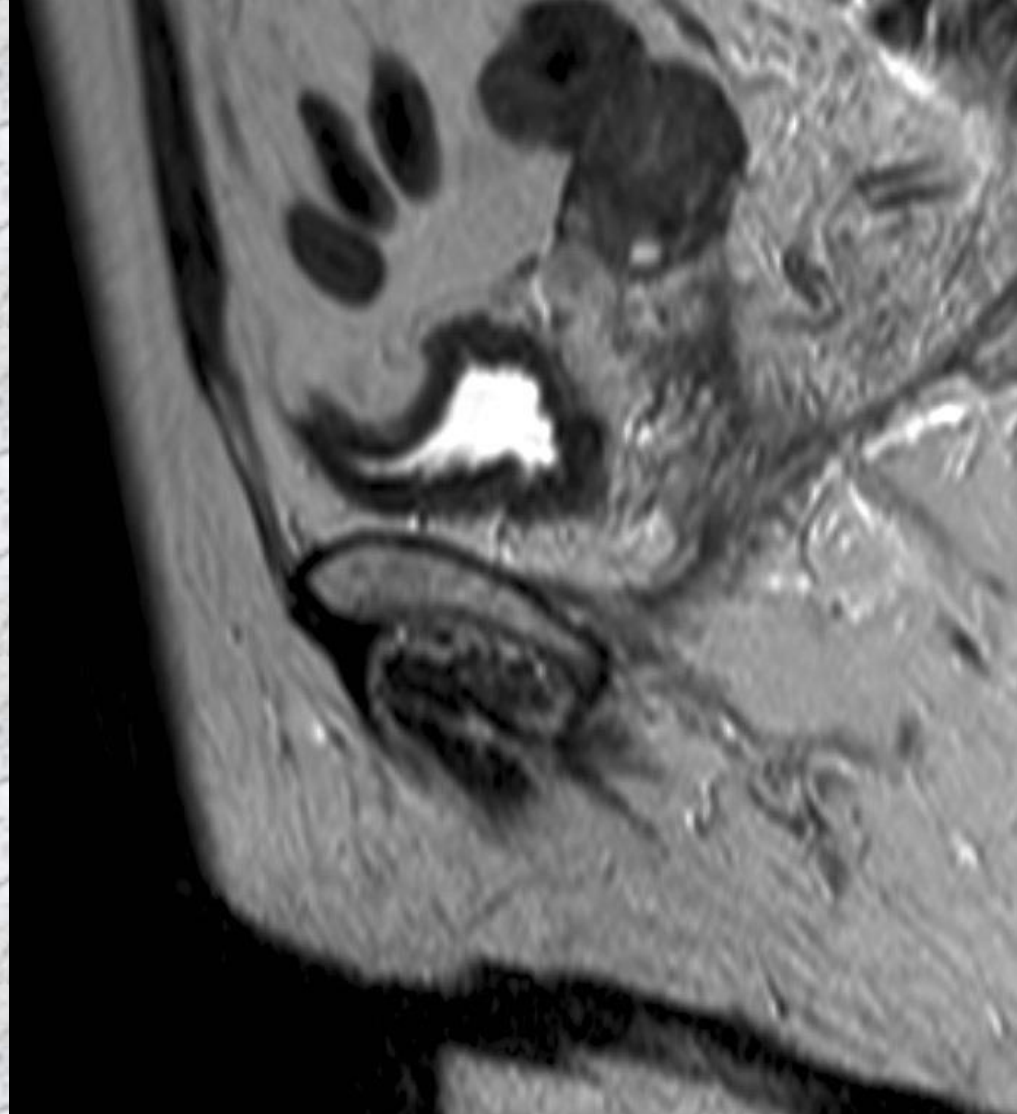
The second argument is for sharing all these forms of the same pathophysiological factors.

This conception of the pubalgia makes us a global management hub pubic biomechanics.



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Pubalgia Athlete

This intimate relationship between the long adductor, the abdominal and the pubic symphysis is the anatomic substrate to design a single whole biomechanical stability ensuring anterior pelvis and the force transmission on either side of the pubic bone.

This "confluence" of anatomical elements explains the frequency of association with different clinical forms and encourages a unicist design of the diagnostic and therapeutic management of the pubalgia athlete.

NB : Two clinical examinations at rest and after several days of sports



Pubalgia Athlete



**« Ose te servir de ton entendement »
Emmanuel Kant
Critique de la faculté de juger - 1790**