L’imagerie
dans le bilan des pubalgies du sportif

A.Silvestre

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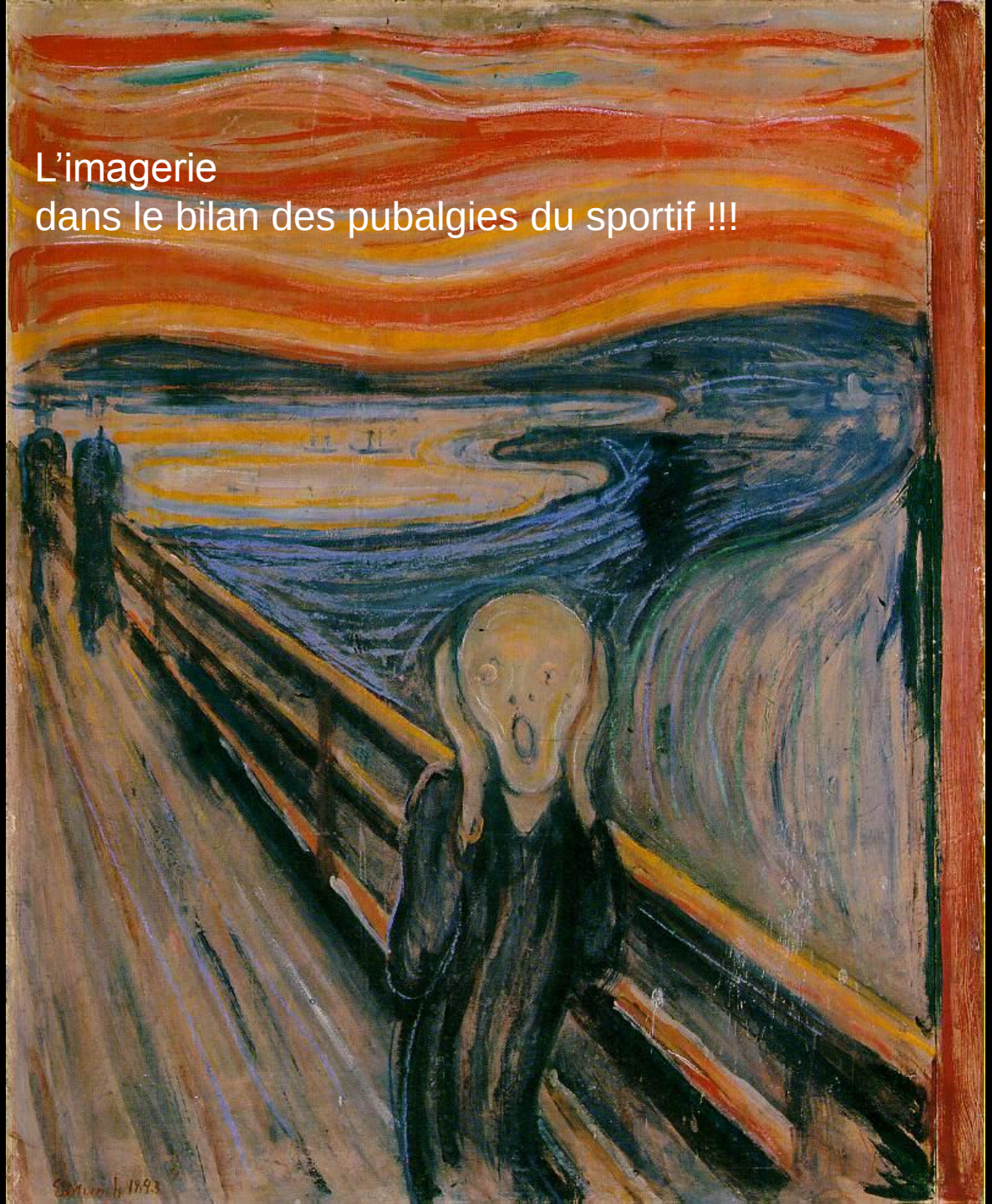

L’imagerie
dans le bilan des pubalgies du sportif !!!

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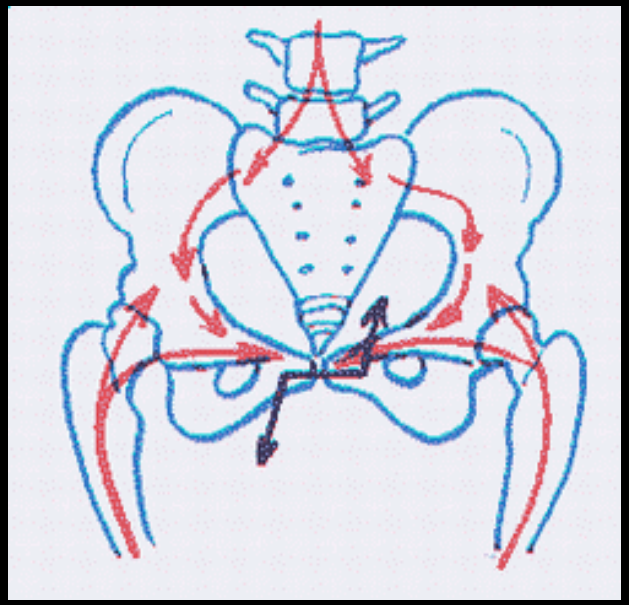
Contexte Anatomo fonctionnel complexe

Point de convergence de nombreuses lignes de force…forces d'étirement et de contractions



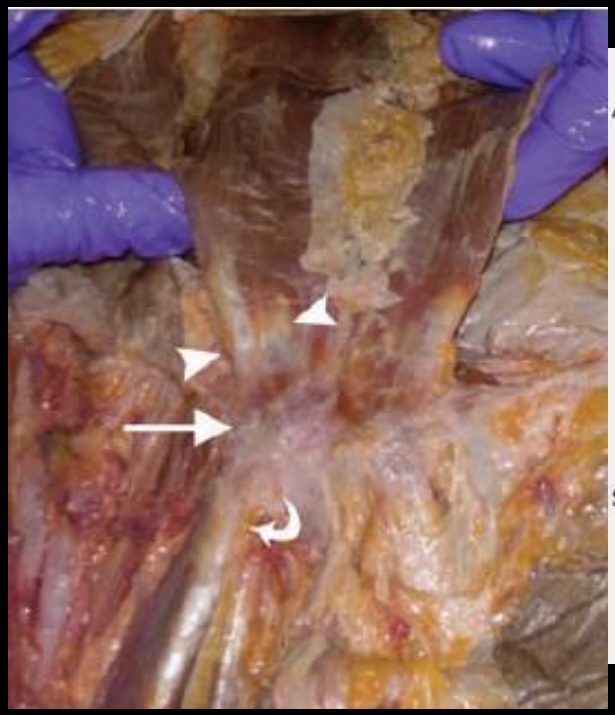
++ articulations

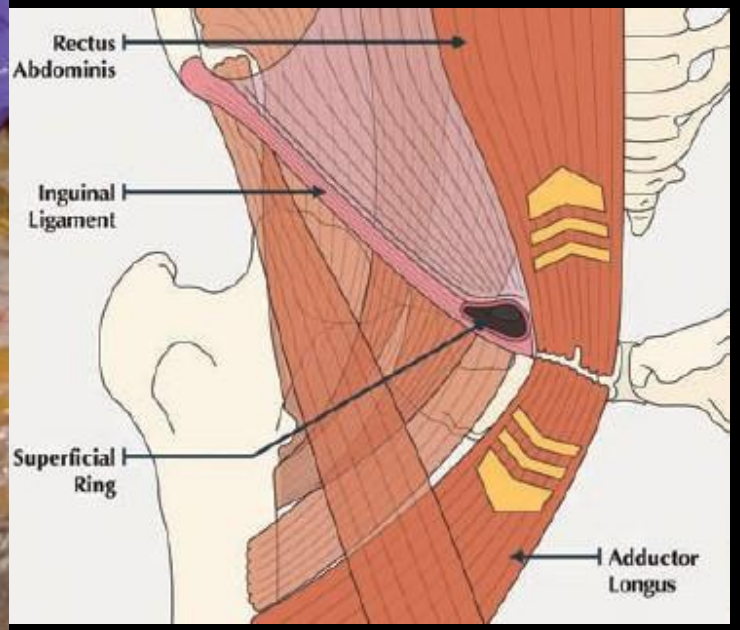
dix huit muscles et autant d'insertions,

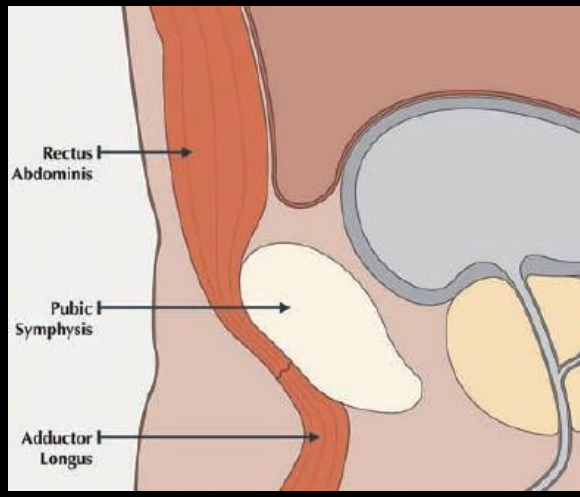
deux canaux et…

six nerfs

Contexte Anatomo fonctionnel complexe







RadioGraphics

RG Volume 28 • Volume 5 • September-October 2008 Omar et al

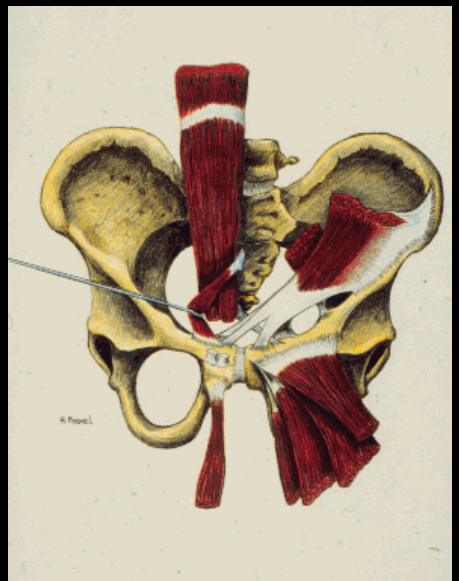
Athletic Pubalgia and "Sports Hernia": Optimal MR Imaging Technique and Findings

Imran M. Omar et al

RadioGraphics 2008; 28:1415–1438 • Published online 10.1148/rg.285075217 • Content Codes: MK MR

La Pubalgie du Sportif

Une symptomatologie s'exprimant par un syndrome douloureux fréquemment récurrent du carrefour pubien, lié à l'effort sportif touchant essentiellement la chaîne os-tendon-muscle et regroupant de façon isolée ou combinée quatre formes cliniques (Bouvard et coll. JTS 2004)



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4 grandes formes cliniques

1 l’ostéo arthropathie pubienne

4 grandes formes cliniques

1 l’ostéo arthropathie pubienne

2 les atteintes du droit abdominal

4 grandes formes cliniques

1 l’ostéo arthropathie pubienne

2 les atteintes du droit abdominal

3 les atteintes des Adducteurs

4 grandes formes cliniques

1 l’ostéo arthropathie pubienne

2 les atteintes du droit abdominal

3 les atteintes des Adducteurs

4 les souffrances du canal inguinal

Incidence

Tous sports confondus	2 à 5 %

- Nielsen 89 (football) 18%
- Irshad 97 (hockey) 20%
- Gibbon 99 (n= 2335, football) 24%

Syndromes canalaires

Les atteintes des adducteurs
et les souffrances du canal inguinal
peuvent se compliquer de
syndromes canalaires

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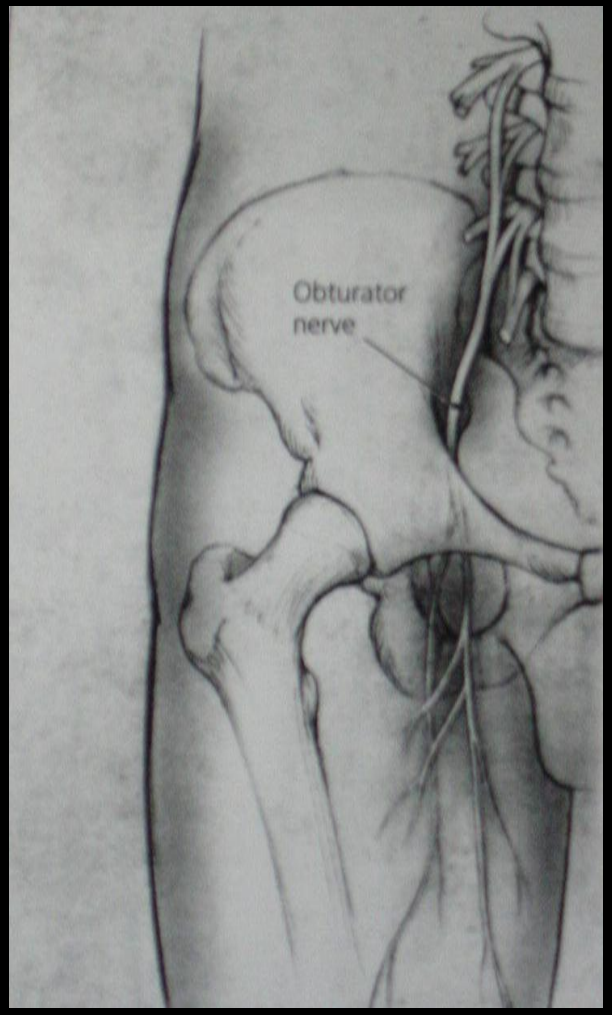
syndrome canalaire du nerf obturateur



Souffrance du nerf obturateur dans l'atteinte des ADD
Bradshaw C.et coll., Obturator nerve entrapment. A cause of groin pain in athletes. Am.J.Sports Med., 1997. (n= 151)

EMG ≥3 mois et infiltration Test

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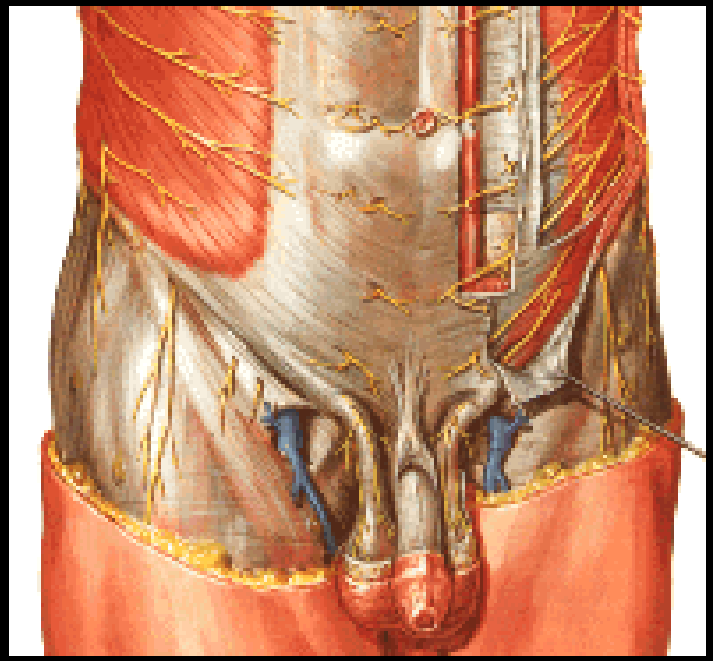
syndrome canalaire du nerf ilio-inguinal et Ilio-hypogastrique



Souffrances secondaires du nerf ilio-inguinal et Ilio-hypogastrique dans l'atteinte du canal inguinal antérieur (Fon 2000, Irschad 2001, Morelli 2001, Orchard 2002, Schorl 2000, Srinivasan 2002, Ziprin 1999)

infiltration Test

L’imagerie

Faire un bilan lésionnel précis

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Radiographies standard

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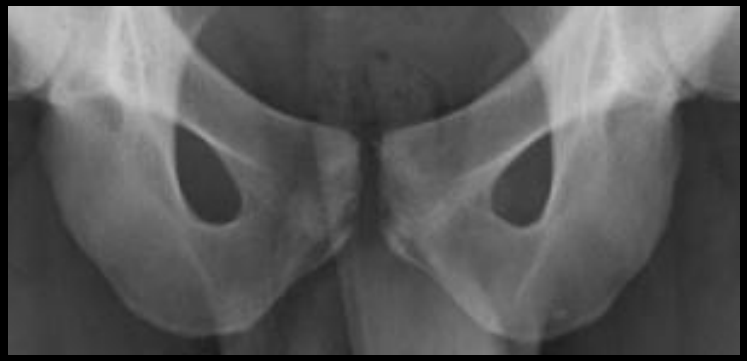
Radiographie standard

Rechercher

- un trouble de la statique pelvienne
- une lésion osseuse
- Chez le sportif, les modifications

de la symphyse pubienne
sont présentes chez plus
de 50% des patients asymptomatiques

(Harris NH, Murray RO, Lésions of the symphysis pubis in athletes. Br Med J 1974; 4 : 211-214)



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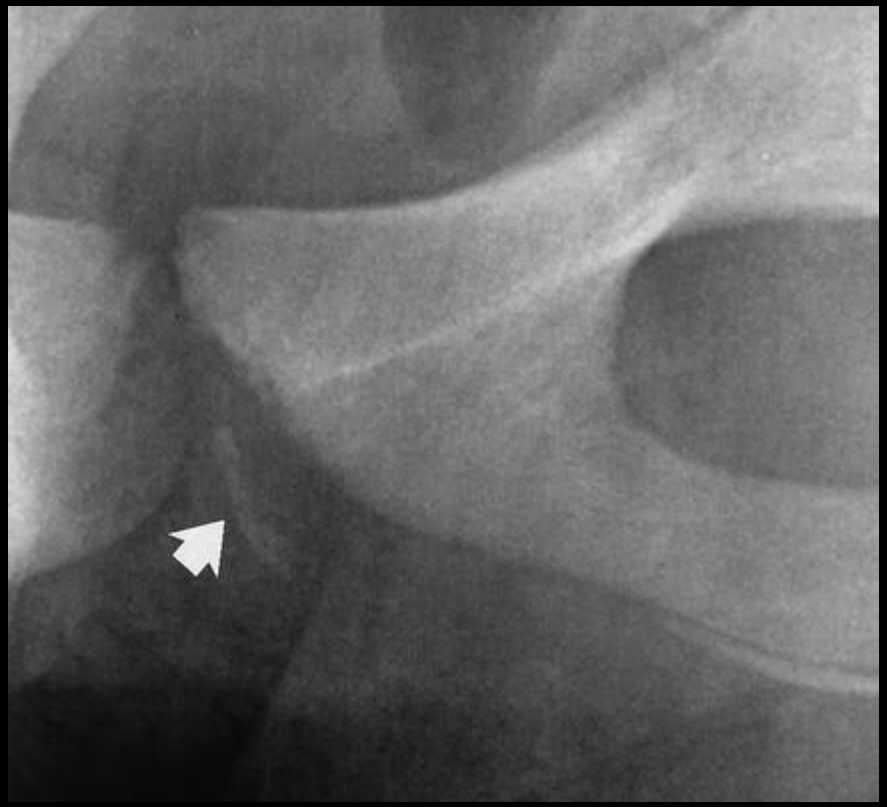
Radiographie standard

L'aspect radiographique n'est absolument pas corrélé à la symptomatologie douloureuse.
Brunet et d'autres auteurs retrouvent des aspects « d'ostéo arthropathie pubienne »
aussi bien chez des pubalgiques récidivistes que chez des sportifs
sans antécédent à ce niveau. La prise en charge thérapeutique
et la décision de reprise sportive ne sont donc jamais
conditionnées par l'examen radiologique.
In : Symphyse pubienne normale et pathologique : apport de l'imagerie
T.Jarlaud et Coll., Journal de radio, vol 82, n° 3, avril 2001

Brunet B. La pubalgie : un syndrome « fourre-tout ».
Plaidoyer pour une plus grande rigueur diagnostique et thérapeutique.
Thèse Doctorat en Médecine, Lyon, 1983 n° 113.

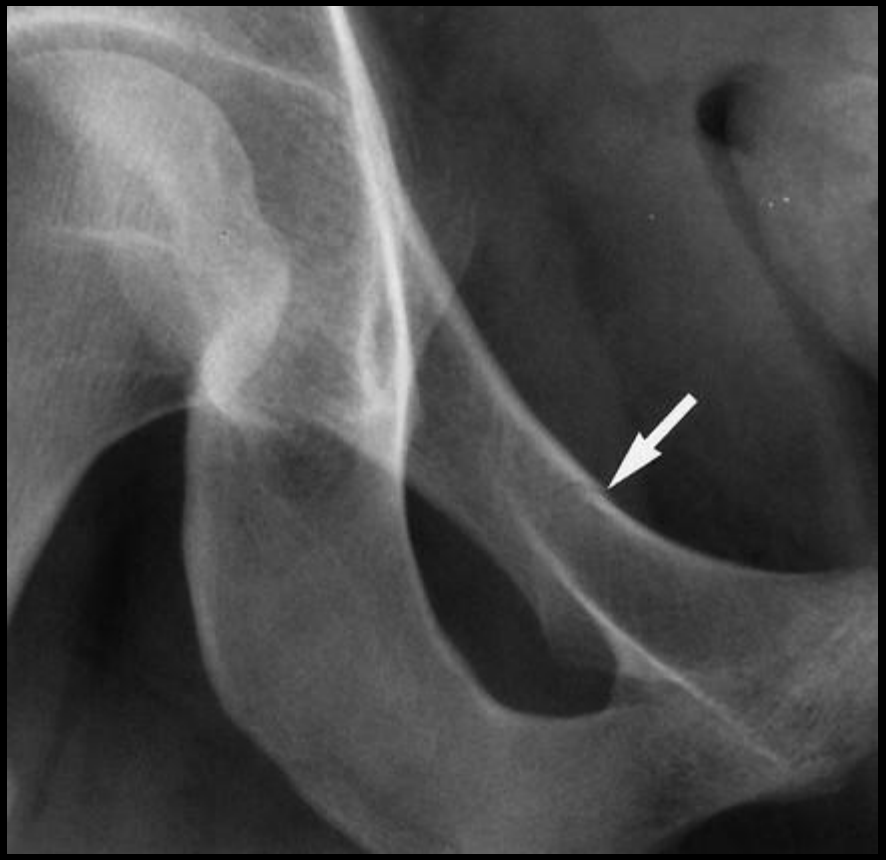
Durey A. Modifications radiologiques microtraumatiques du pubis.
In : Micro-traumatologie du sport. Paris : Masson ; 1985. p. 185-92.

Radiographie standard



B.J.Manaster, Adult Chronic Hip Pain : Radiographic Evaluation
RadioGraphics 2000; 20: 3.

Radiographie standard



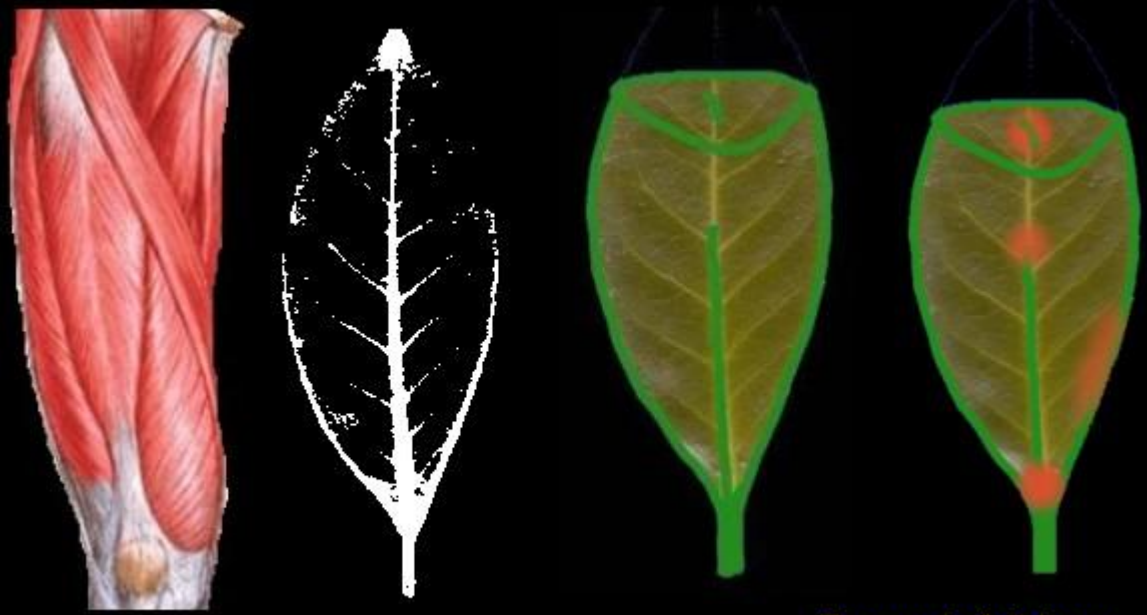
B.J.Manaster, Adult Chronic Hip Pain : Radiographic Evaluation
RadioGraphics 2000; 20: 3.

Radiographie standard

Extrait de Imagerie ostéo articulaire
JD Laredo… - Flammarion

Echographie des adducteurs aux grands droits

Lésions musculaires



Zones de faiblesse
en rouge

centre d'imagerie ostéo articulaire
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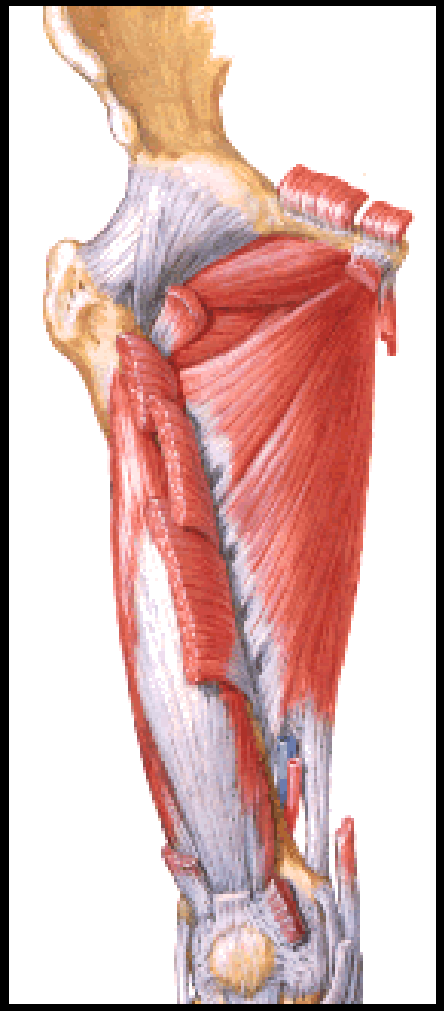
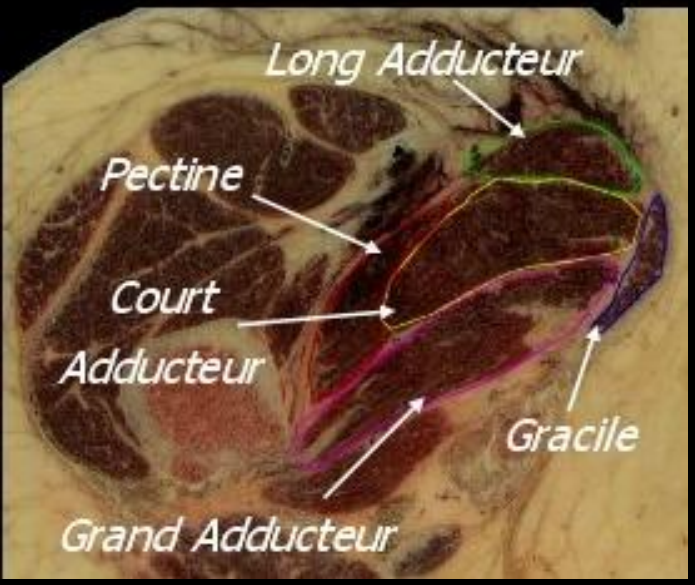
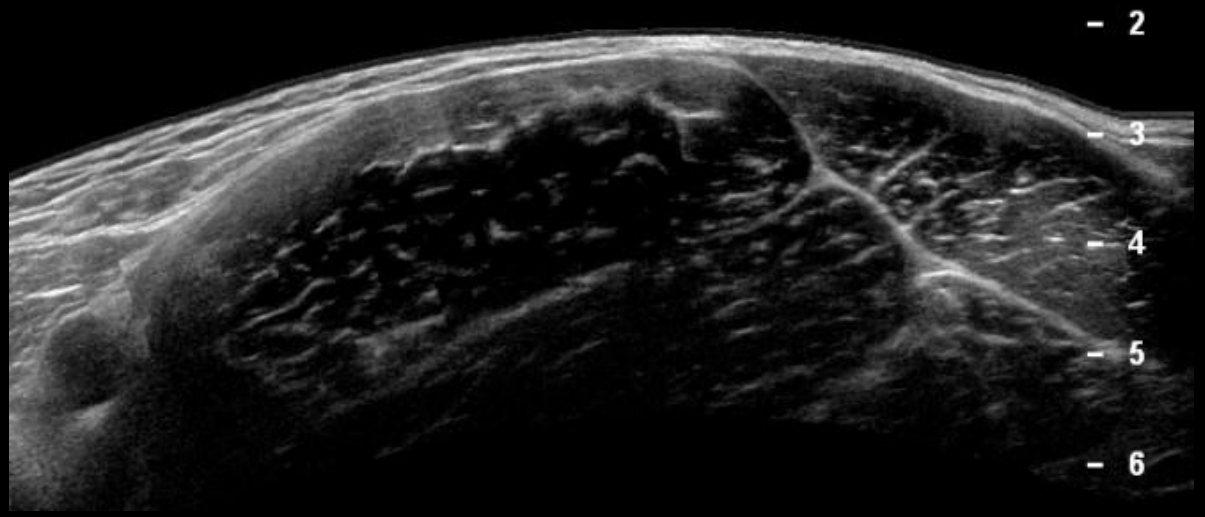
Adducteurs et Gracile

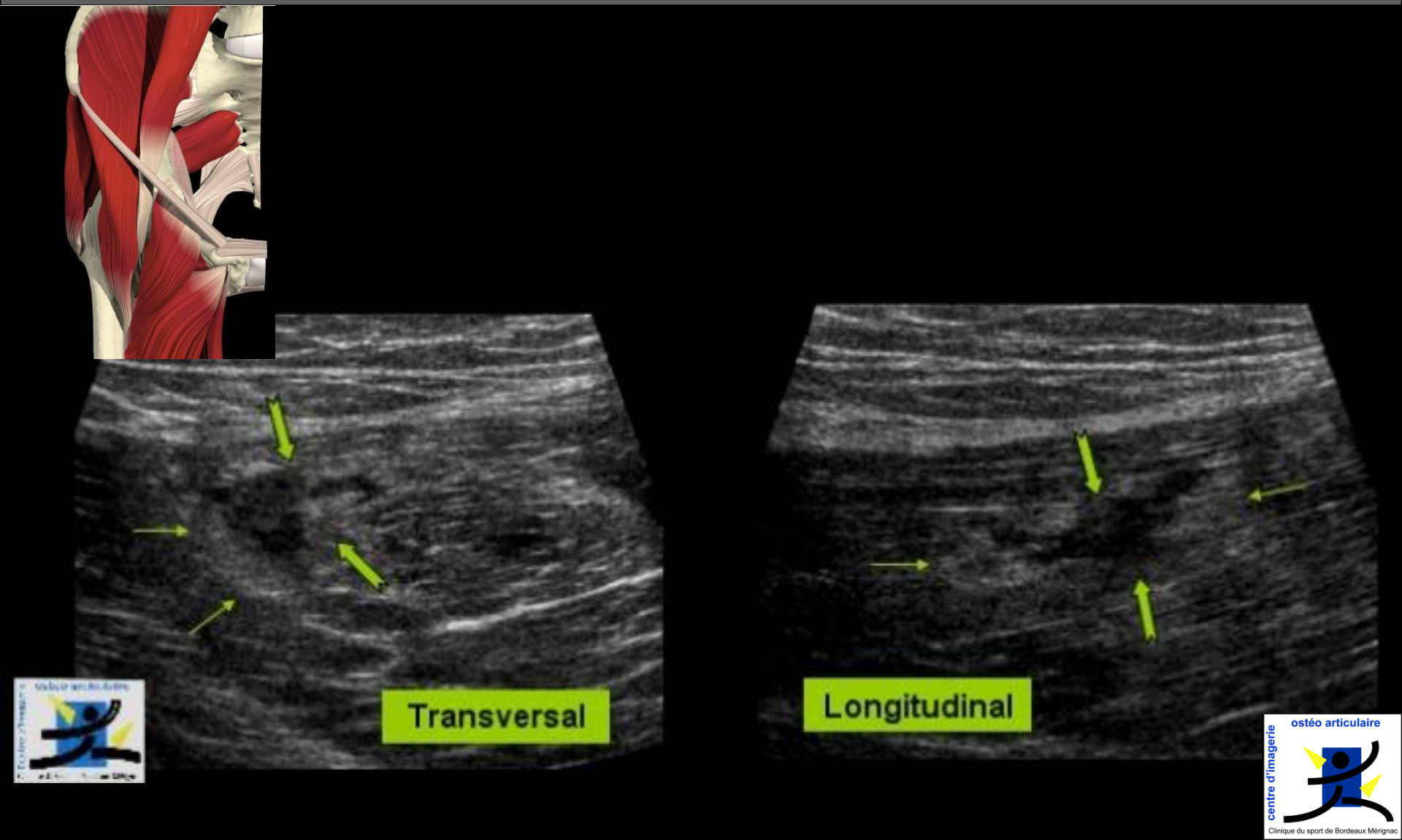


Adducteurs et Gracile

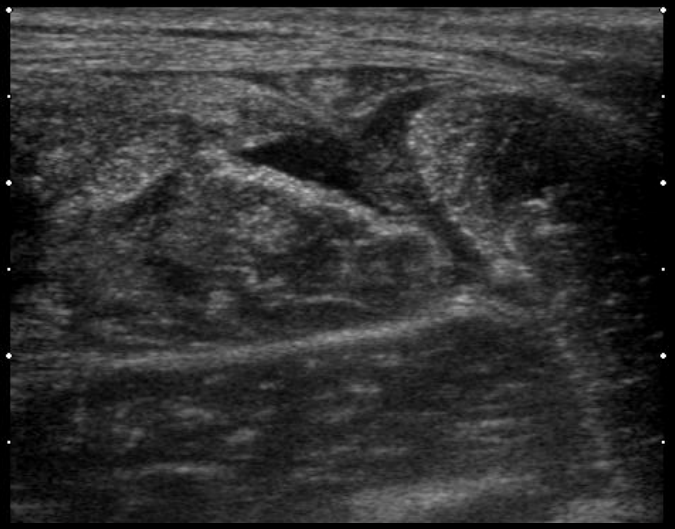


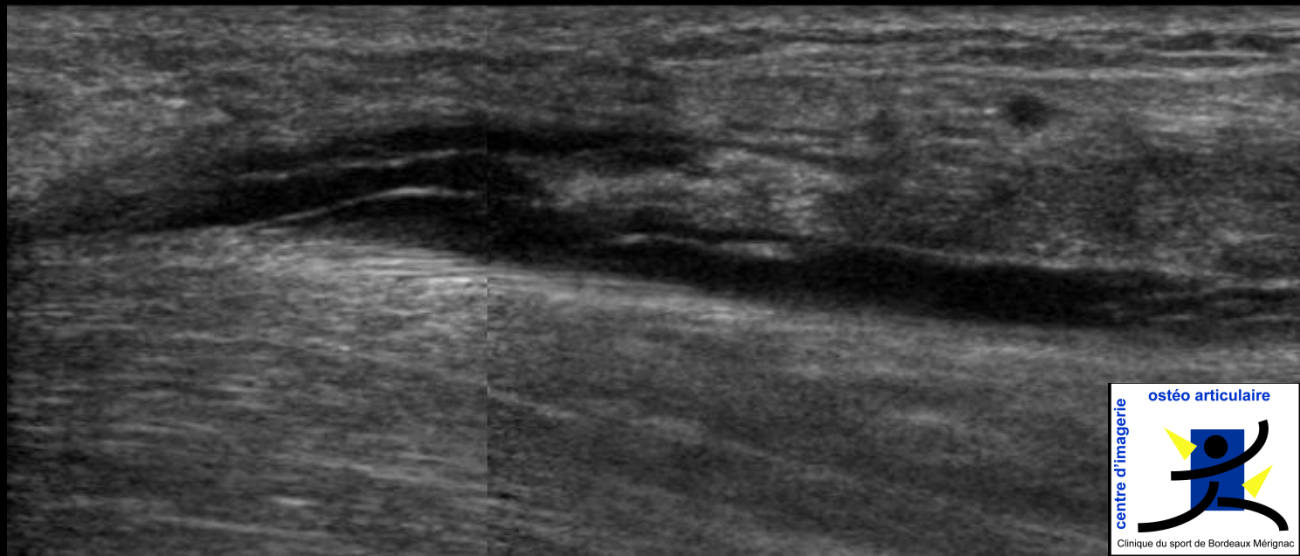


Désinsertion myo aponévrotique du Long ADD



Désinsertion Long ADD





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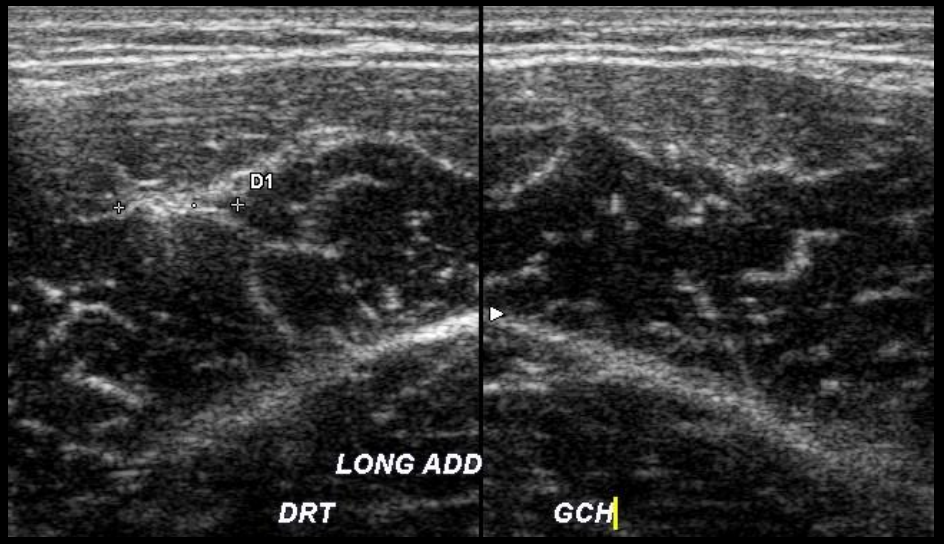
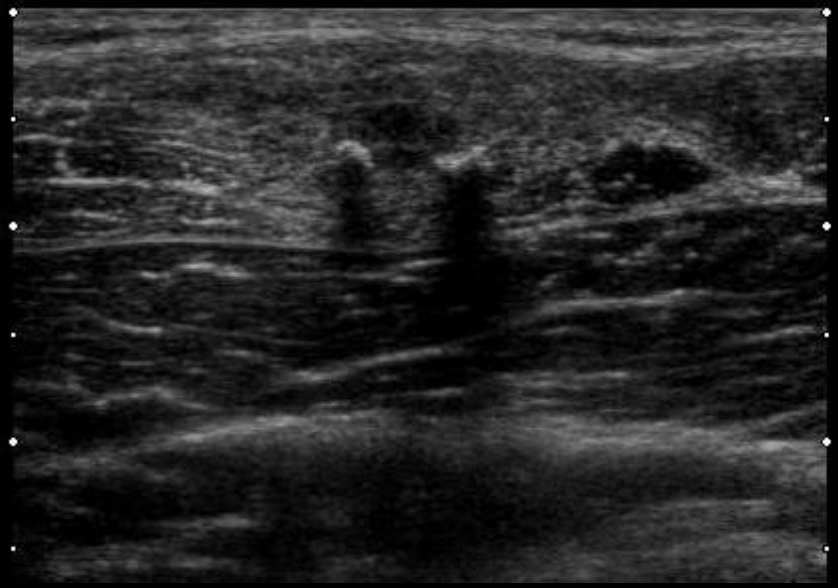
Cicatrice fibreuse du long ADD





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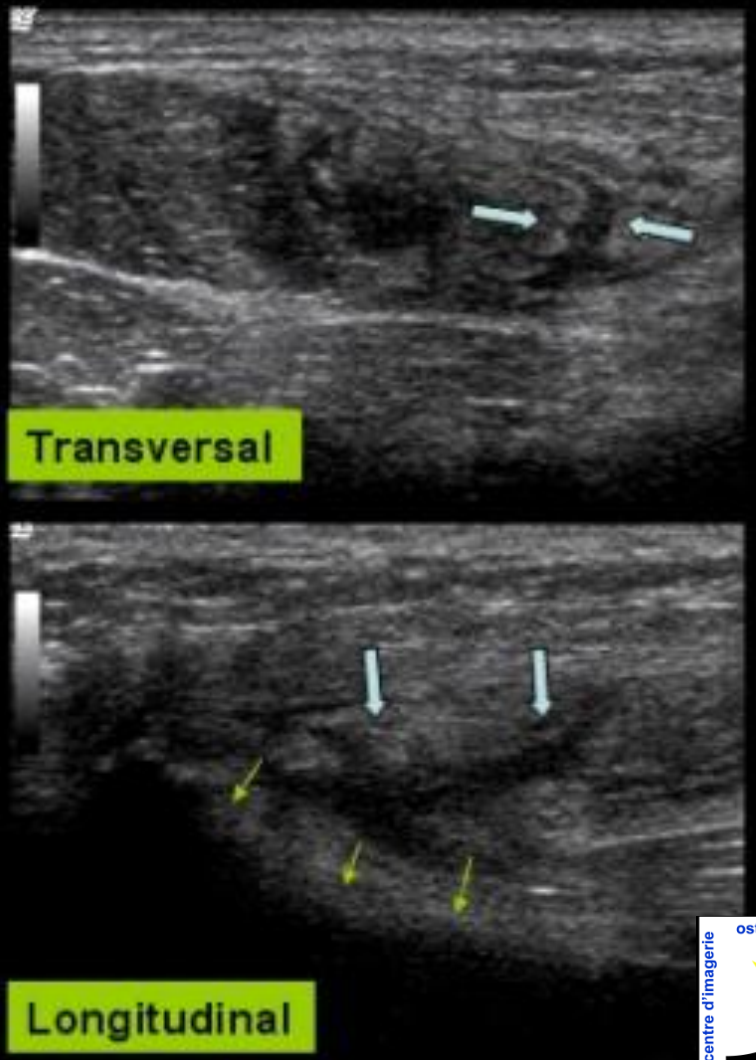
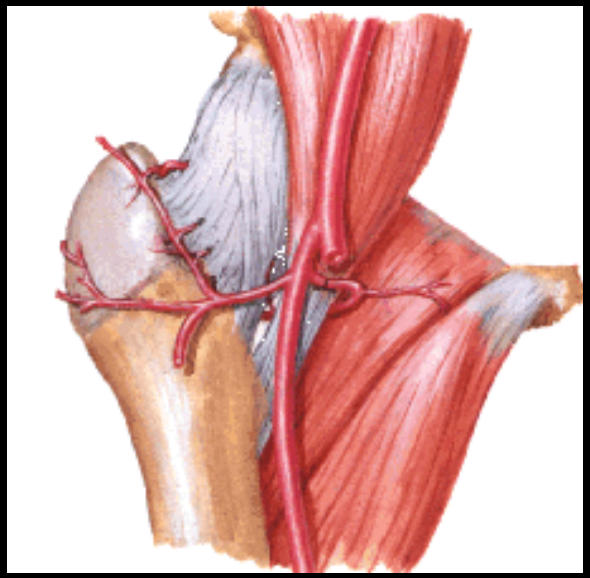
Désinsertion du gracile



Contusion du pectiné



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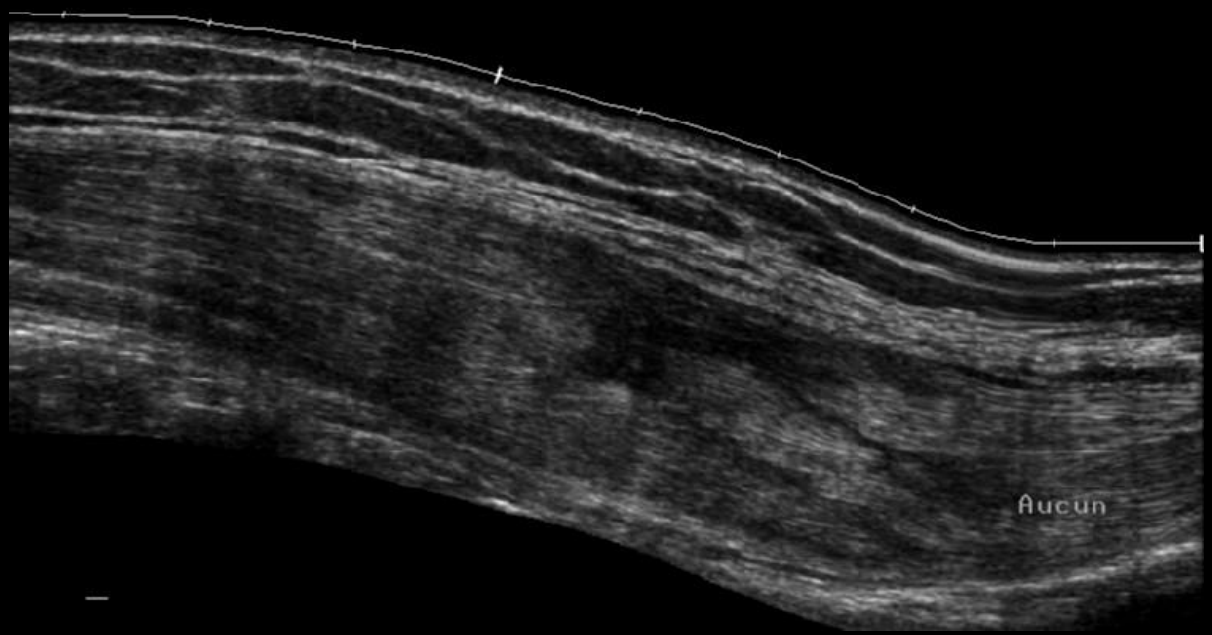
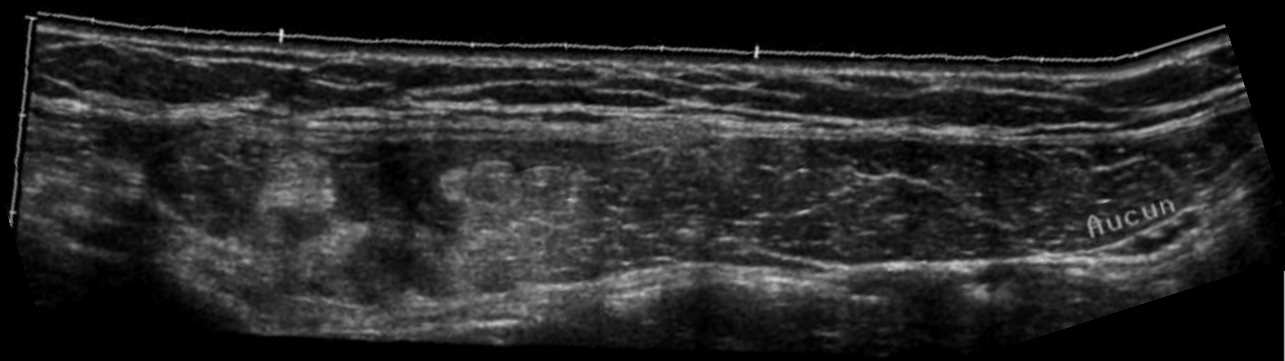
Désinsertion myo aponévrotique du grand droit





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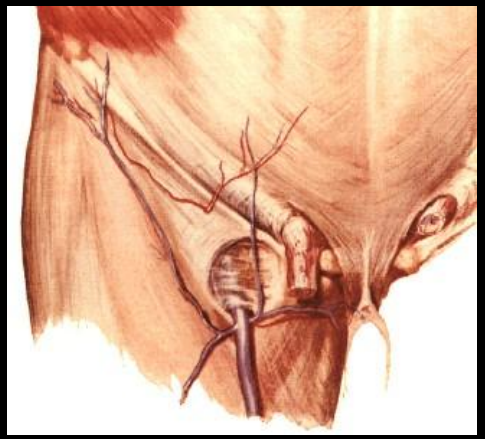
Adénopathies



centre d'imagerie ostéo articulaire
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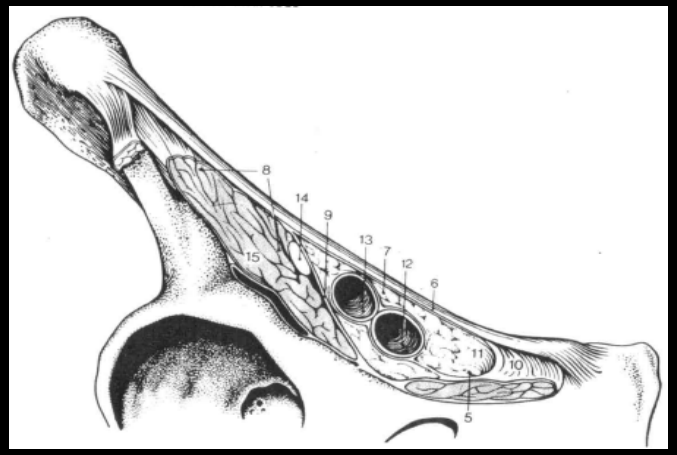
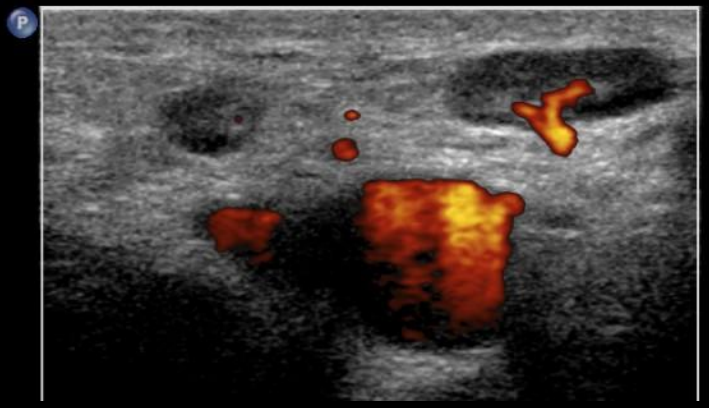
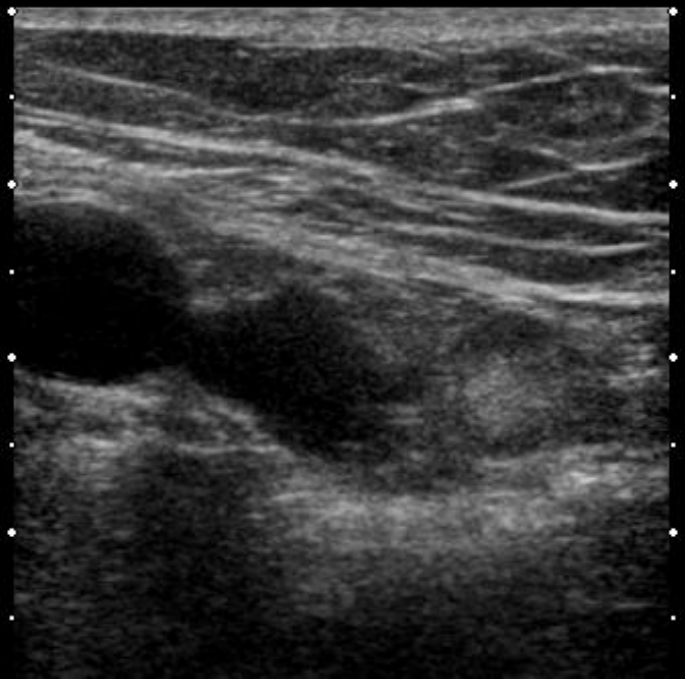
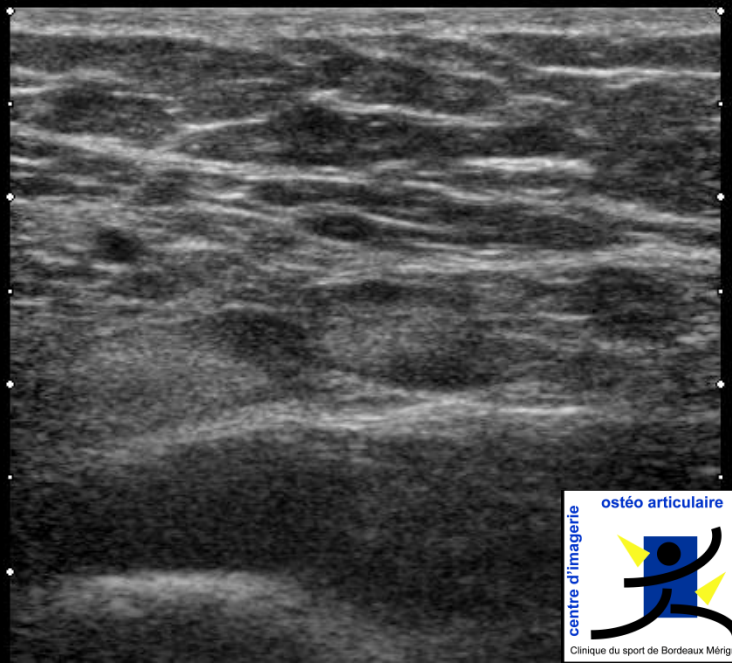
Adénopathies









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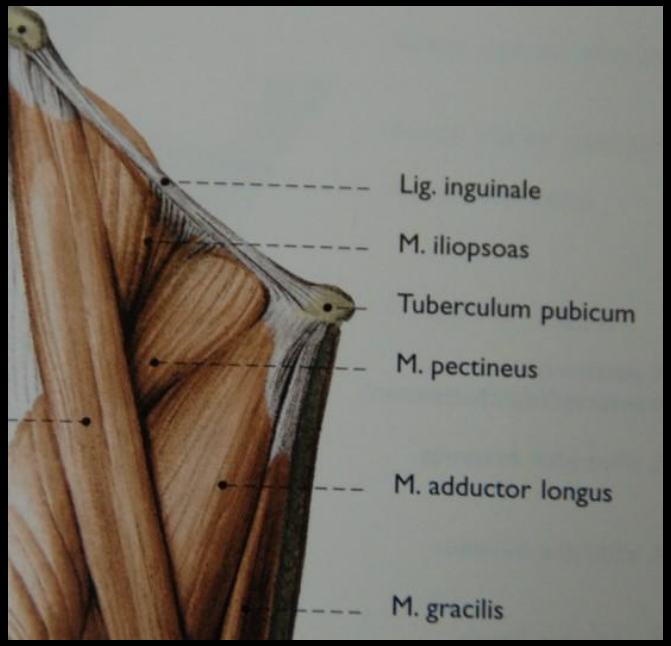

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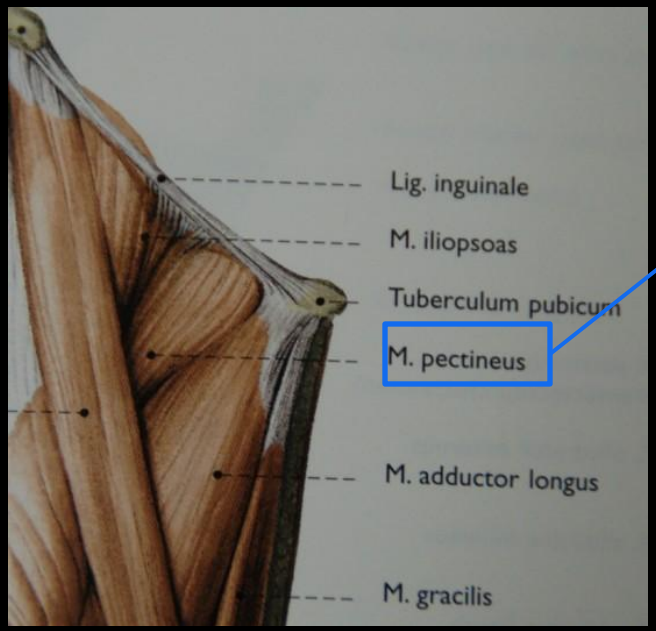

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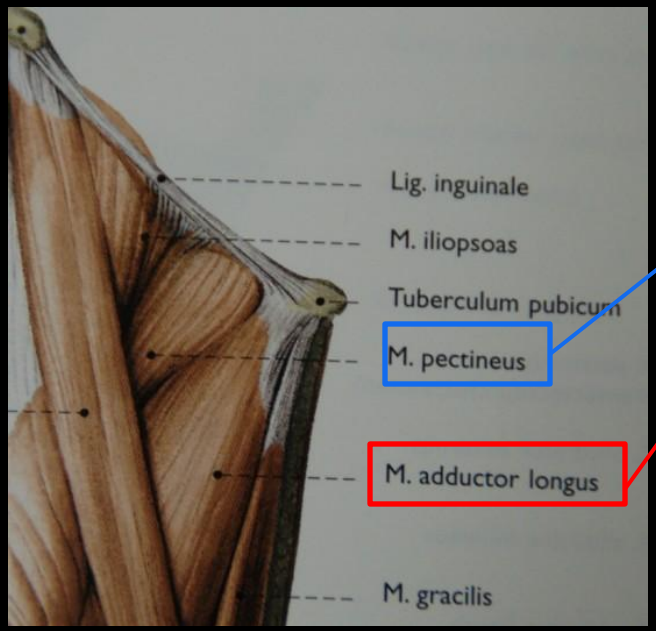

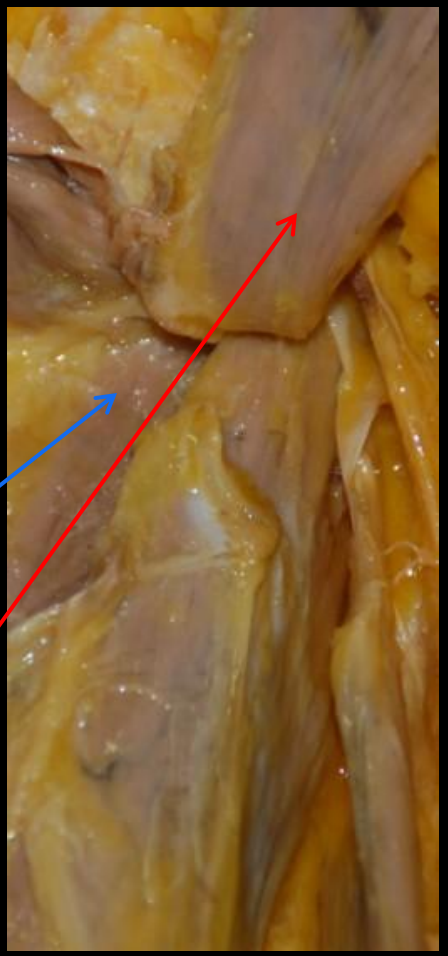

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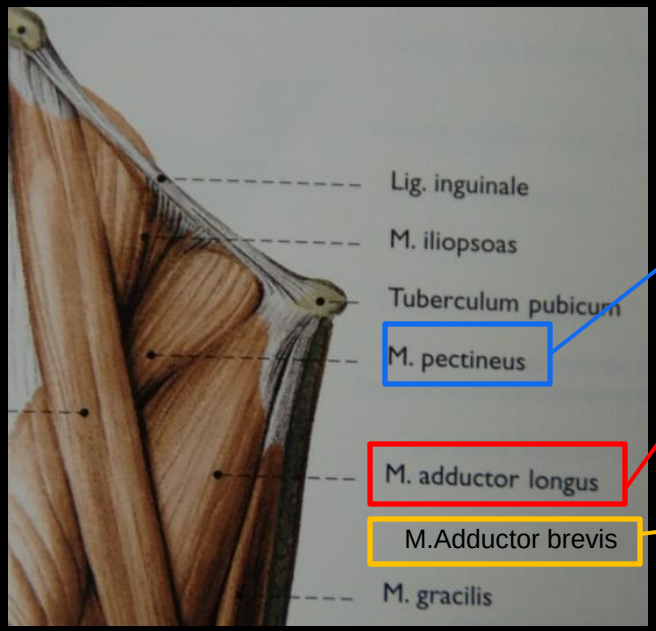

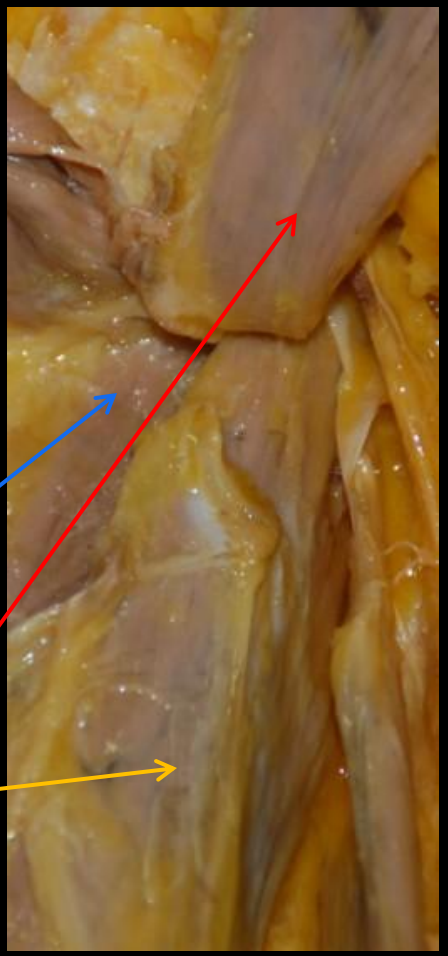

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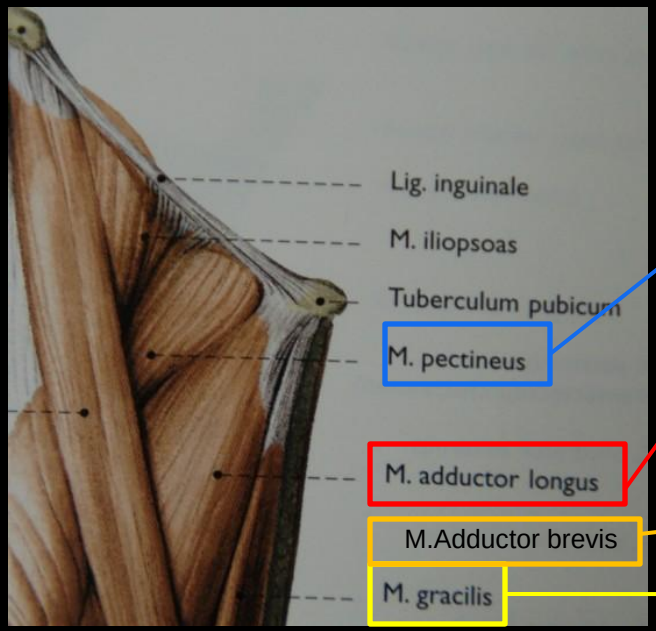

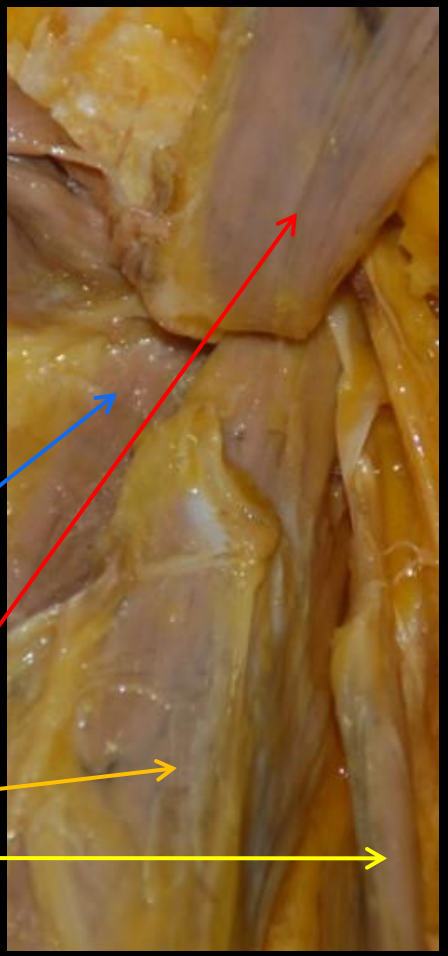

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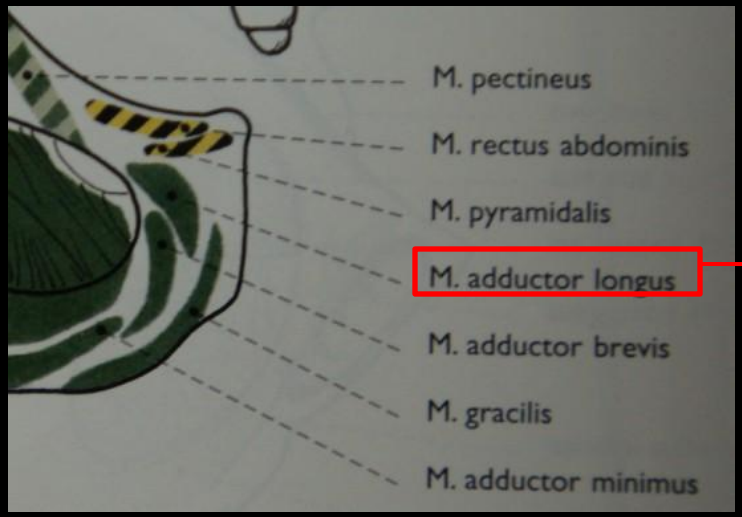
Tendons séparés



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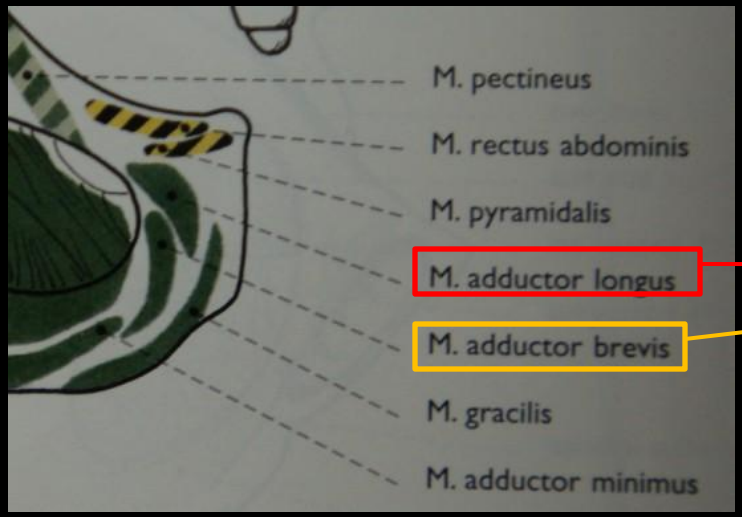
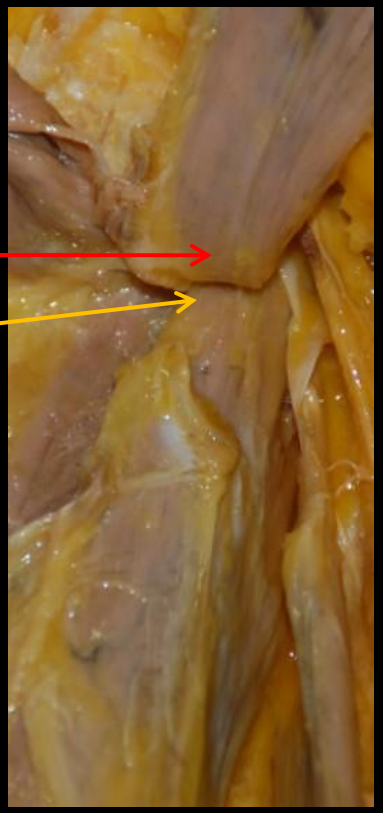
Tendons séparés





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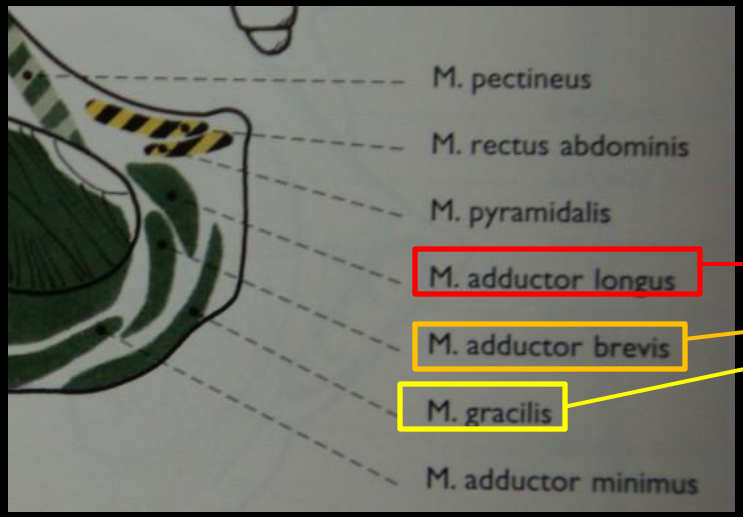
Tendons séparés



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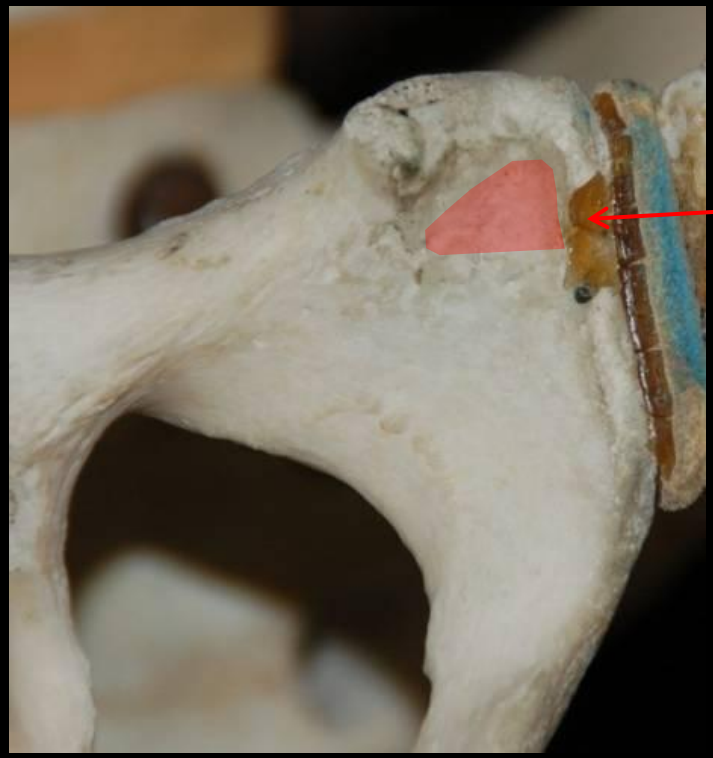

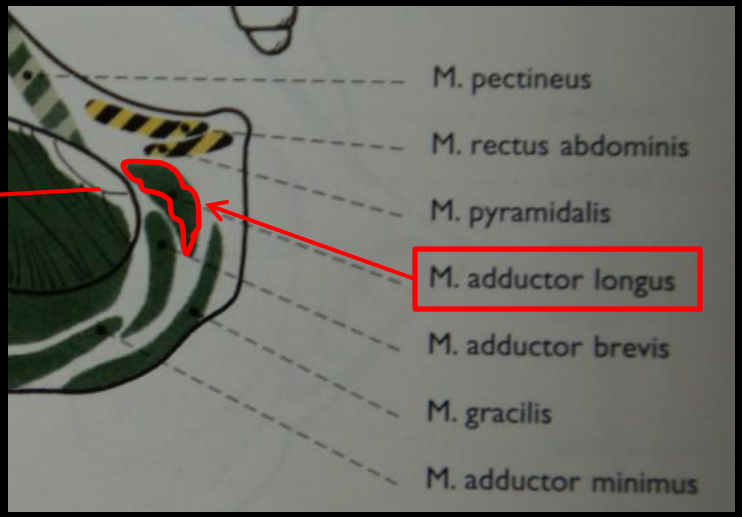

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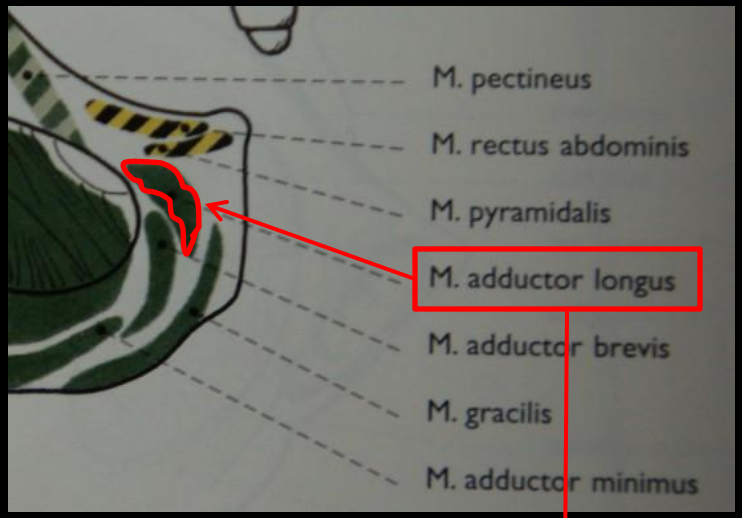

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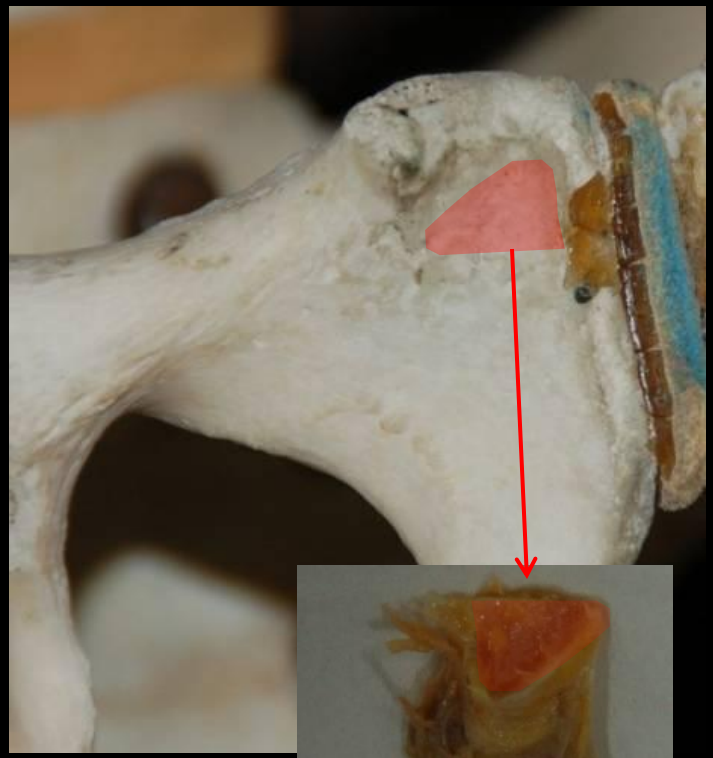

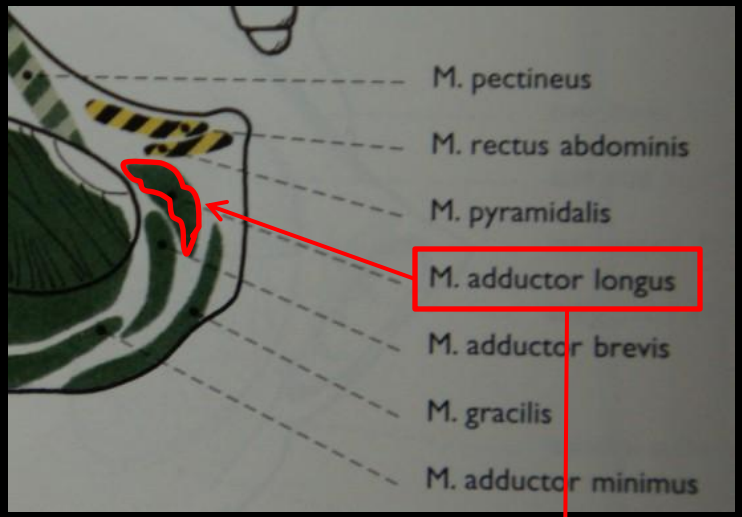

Le long ADD

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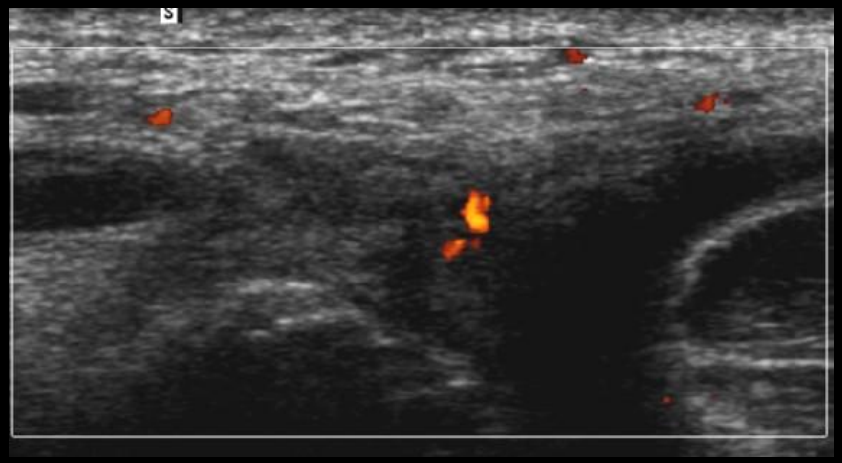
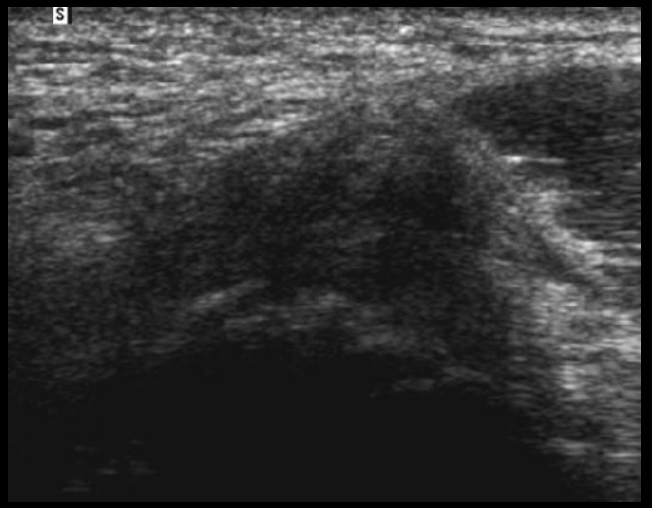
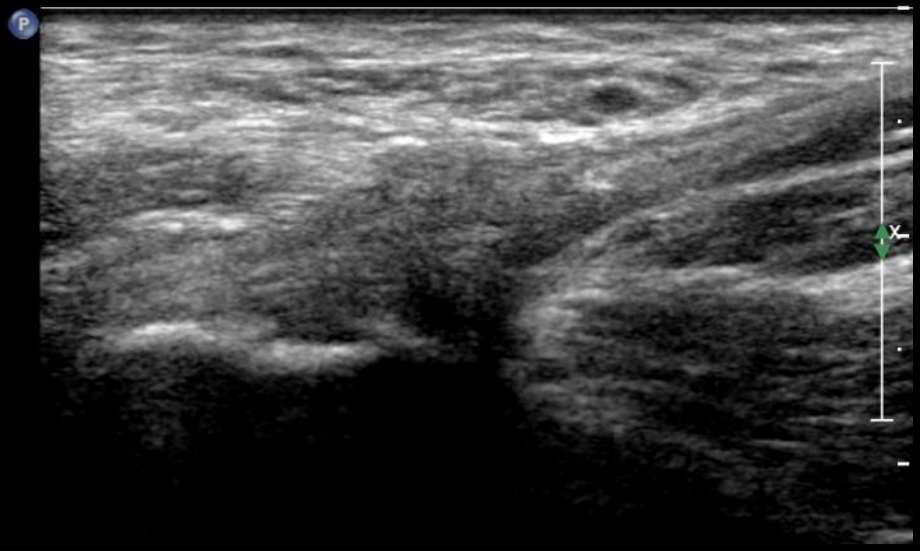
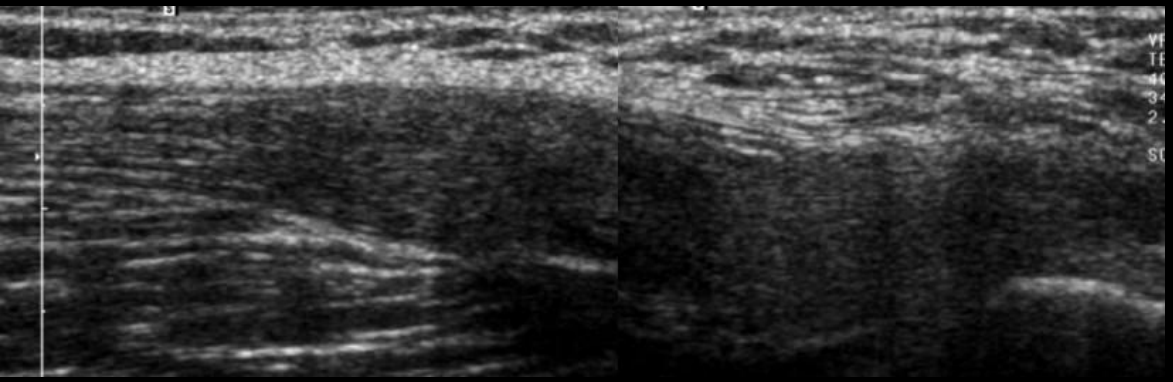
Enthèsopathie des ADD
touche le plus souvent le long ADD

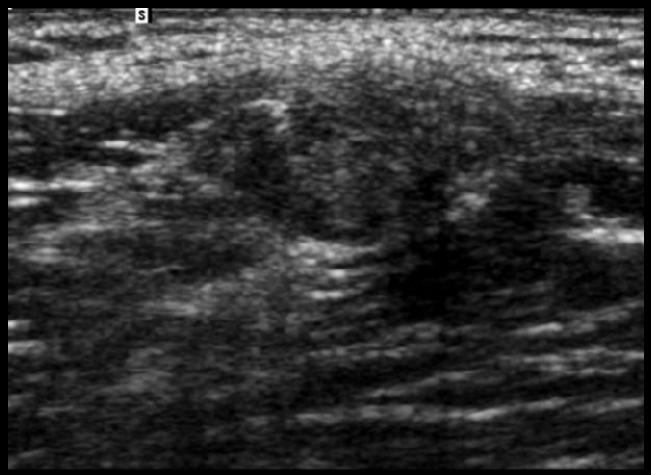




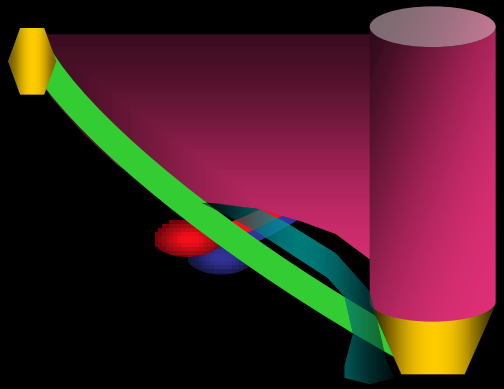


Enthèsopathie des ADD
touche le plus souvent le long ADD

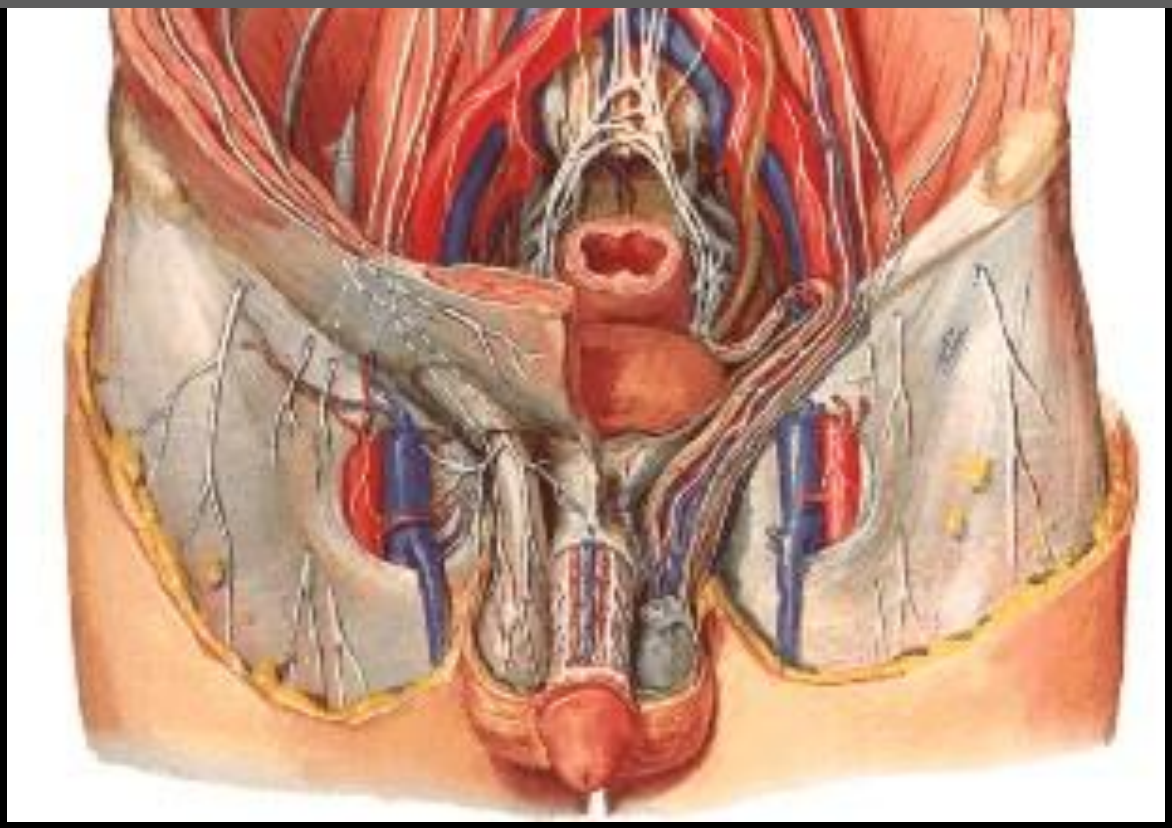


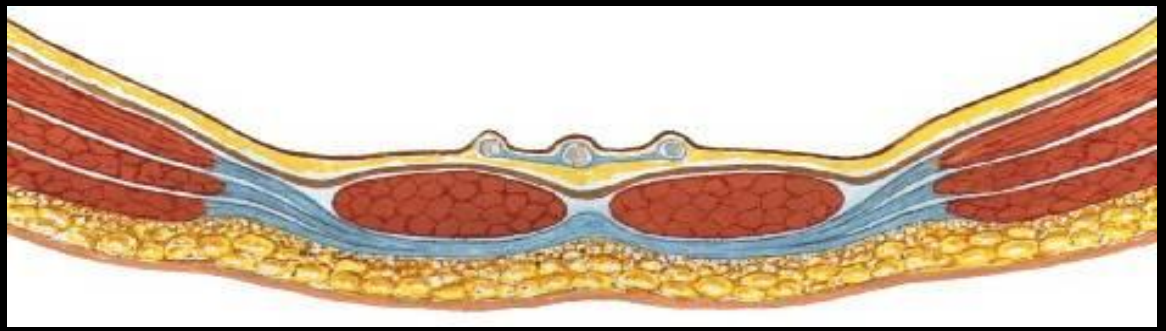


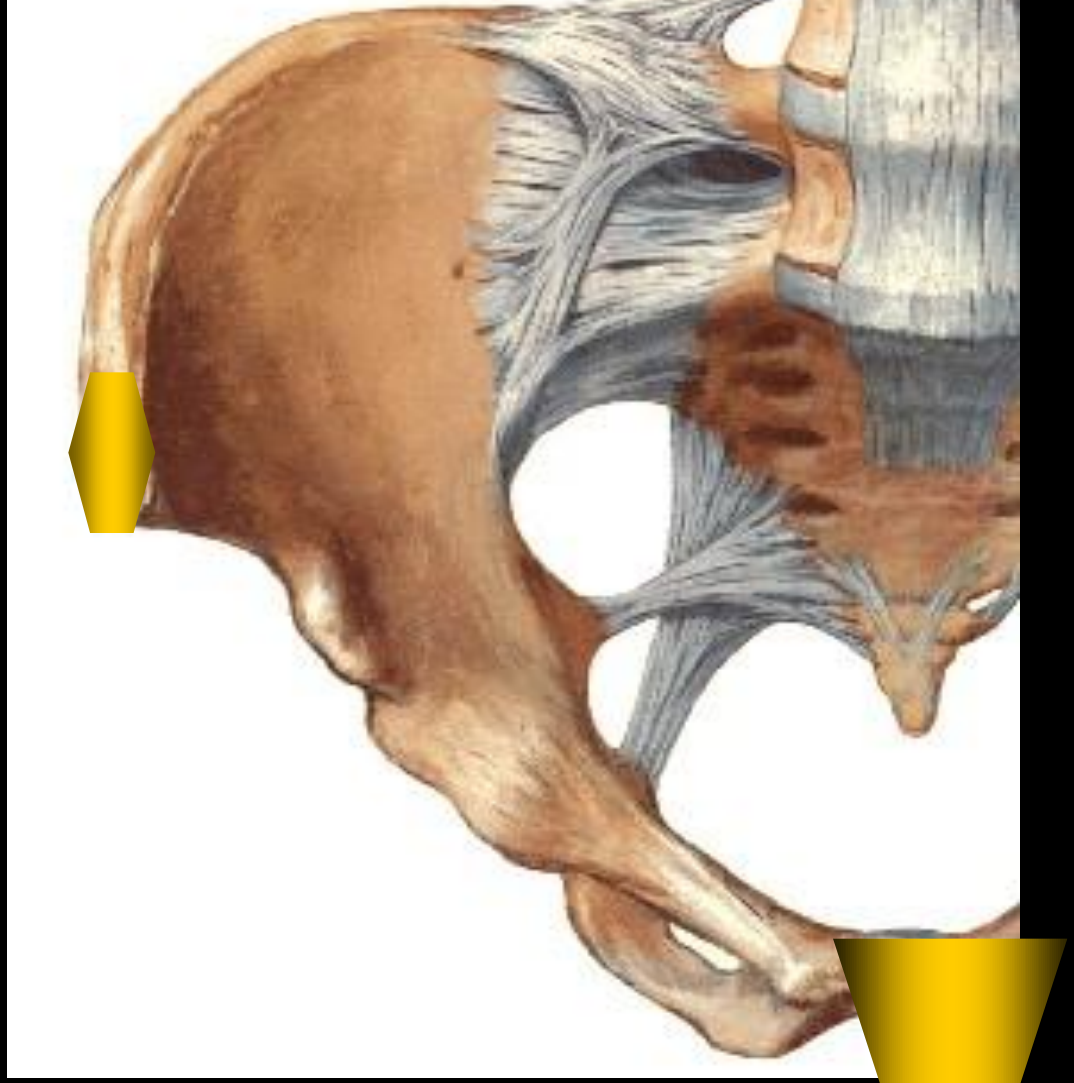
Le canal inguinal

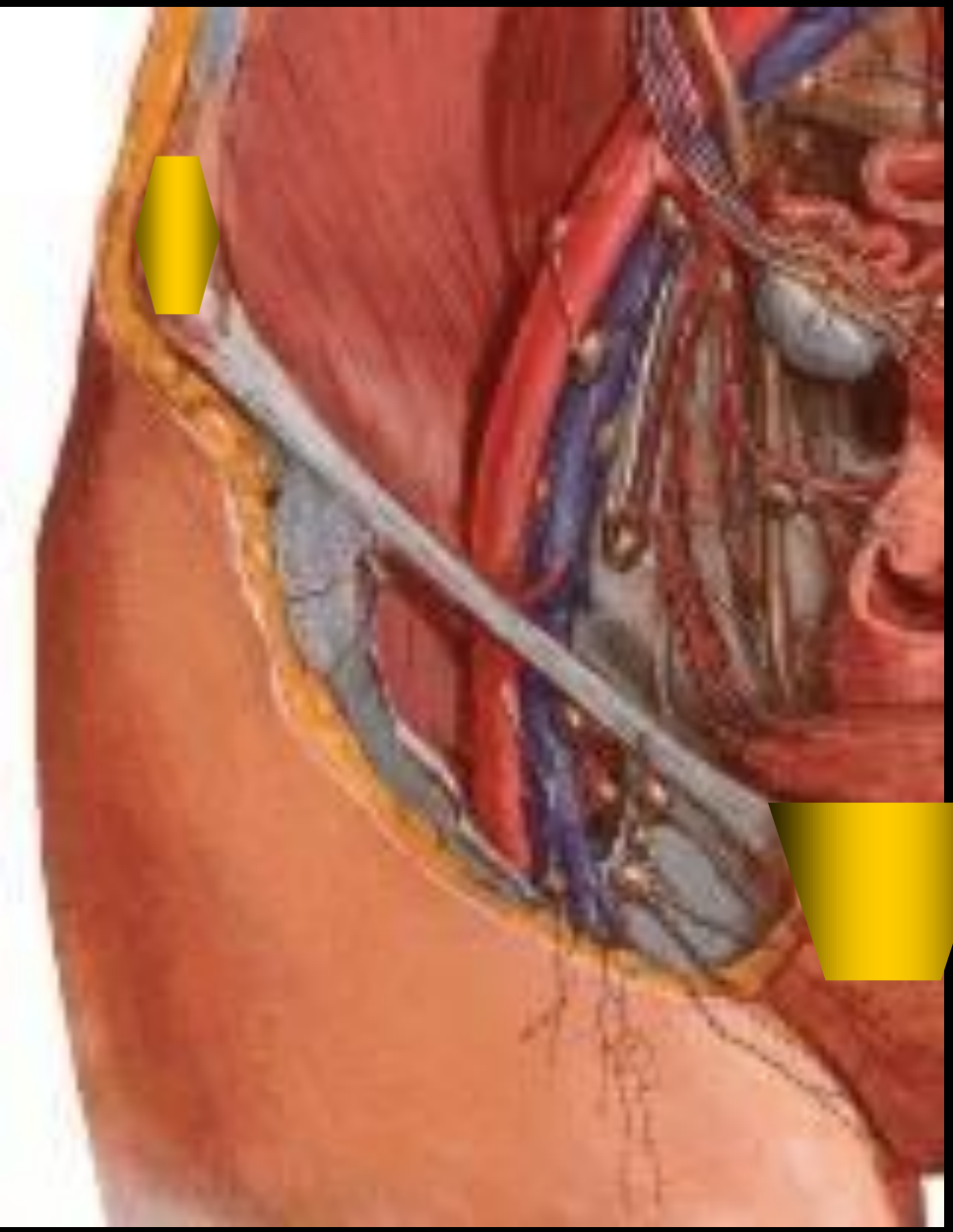


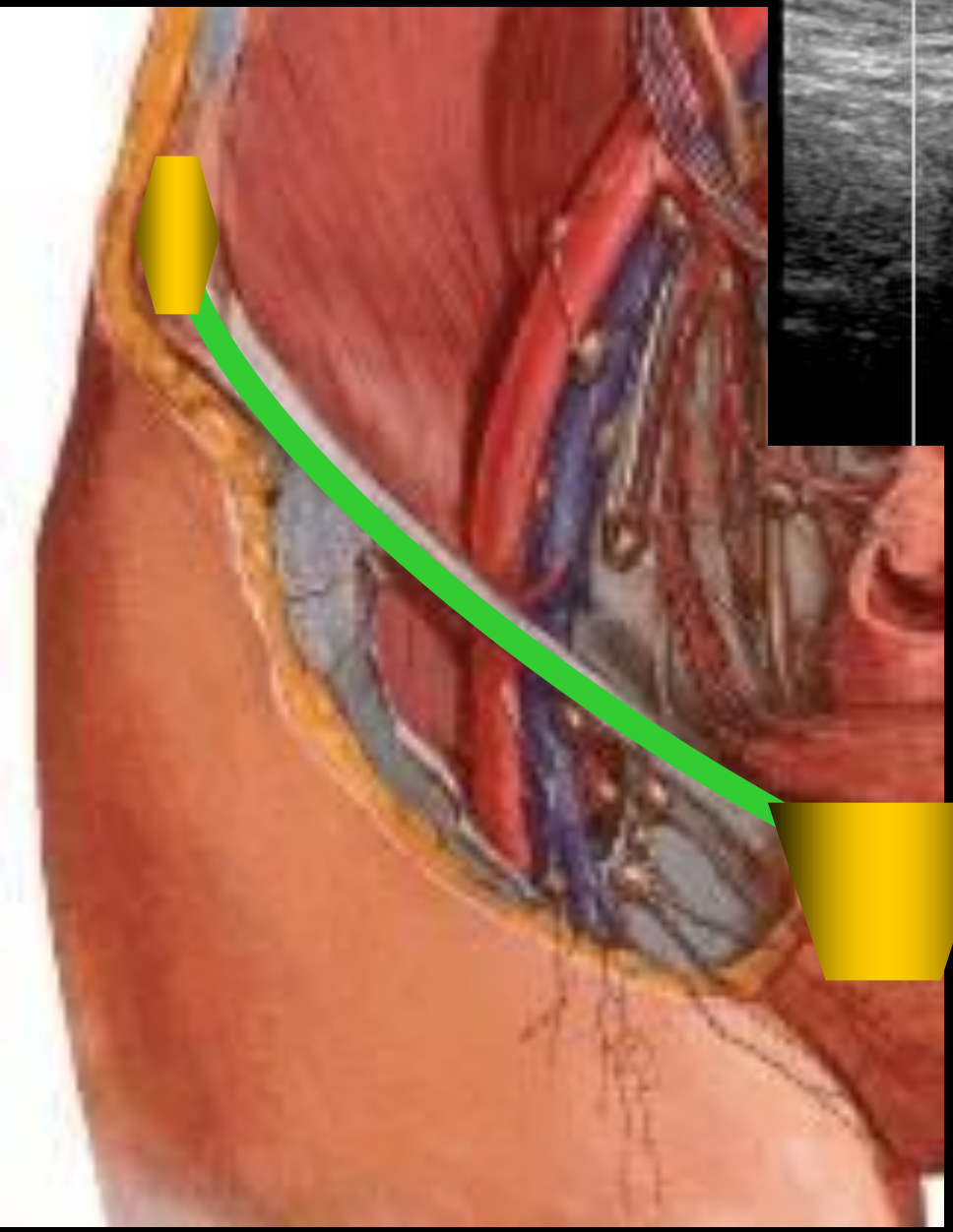
Anatomie du canal inguinal

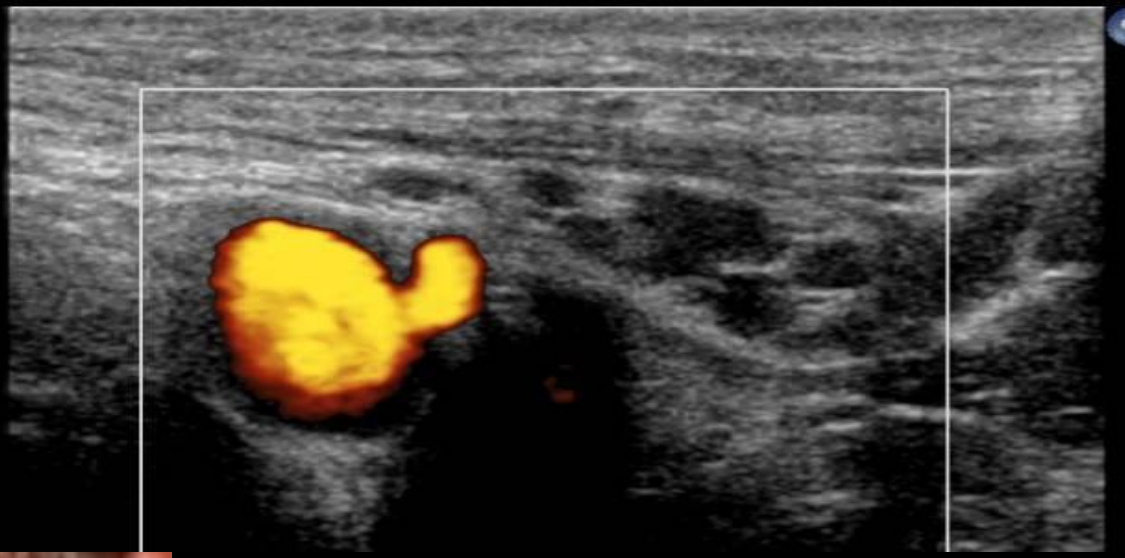


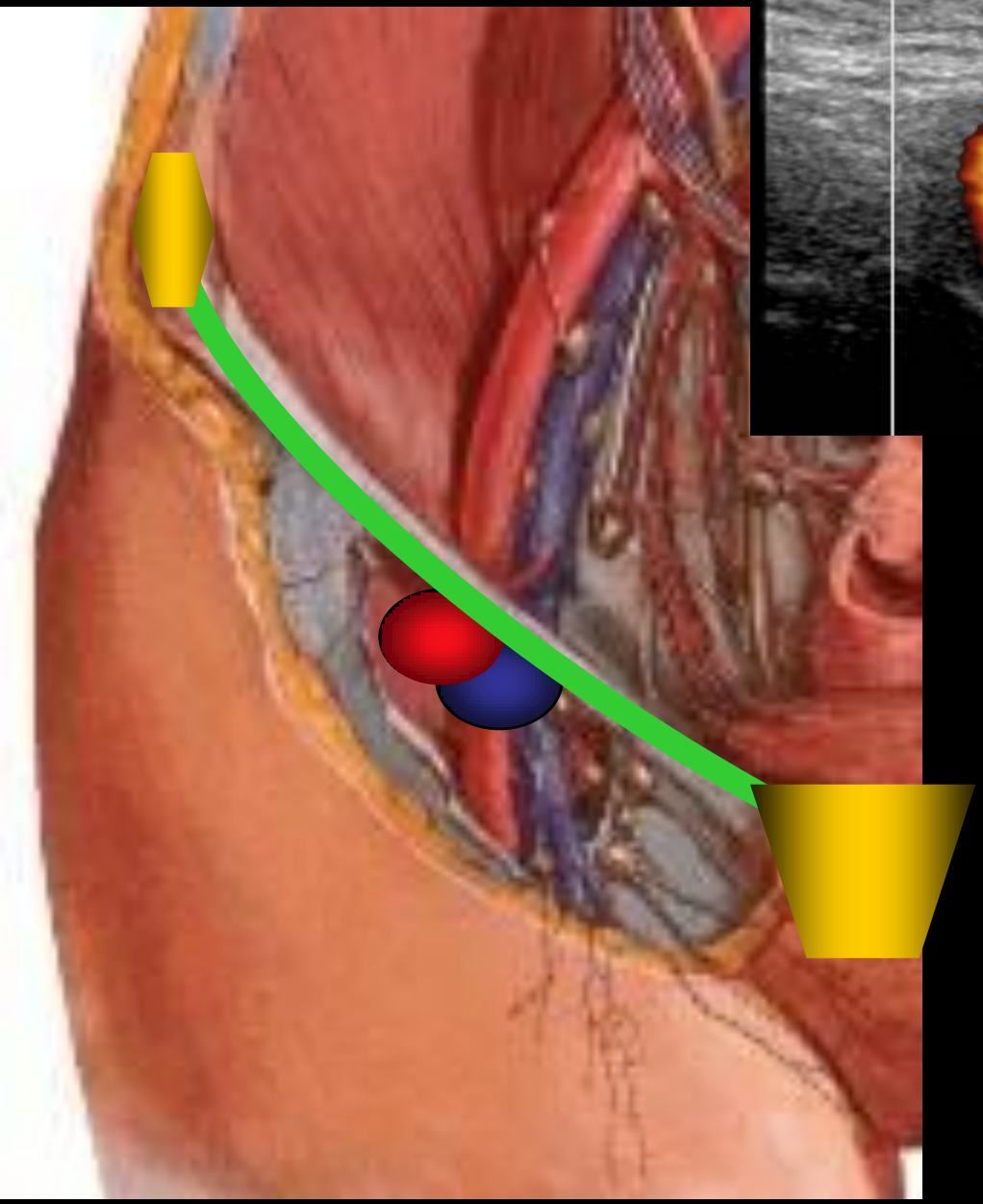


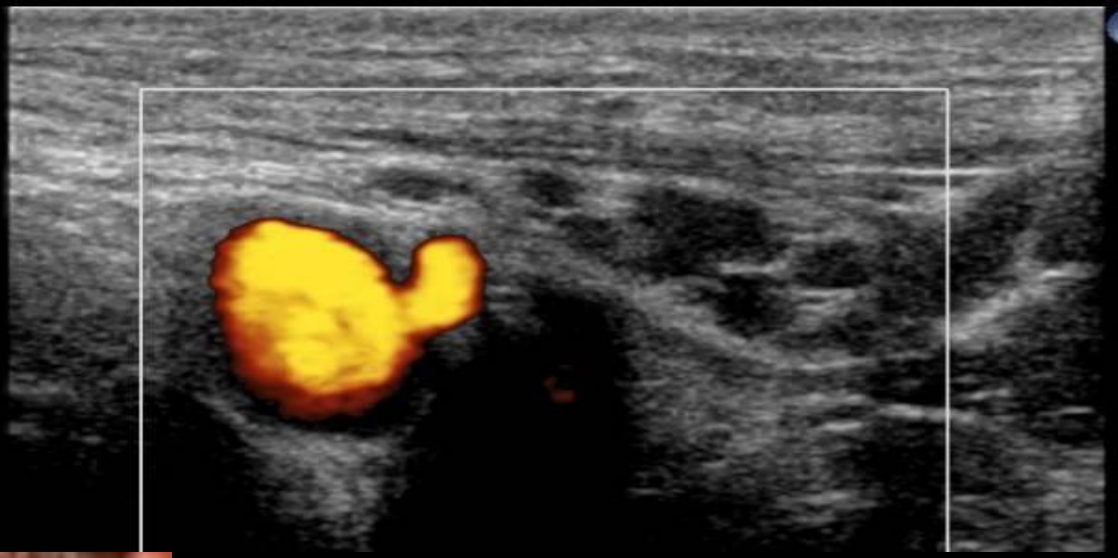


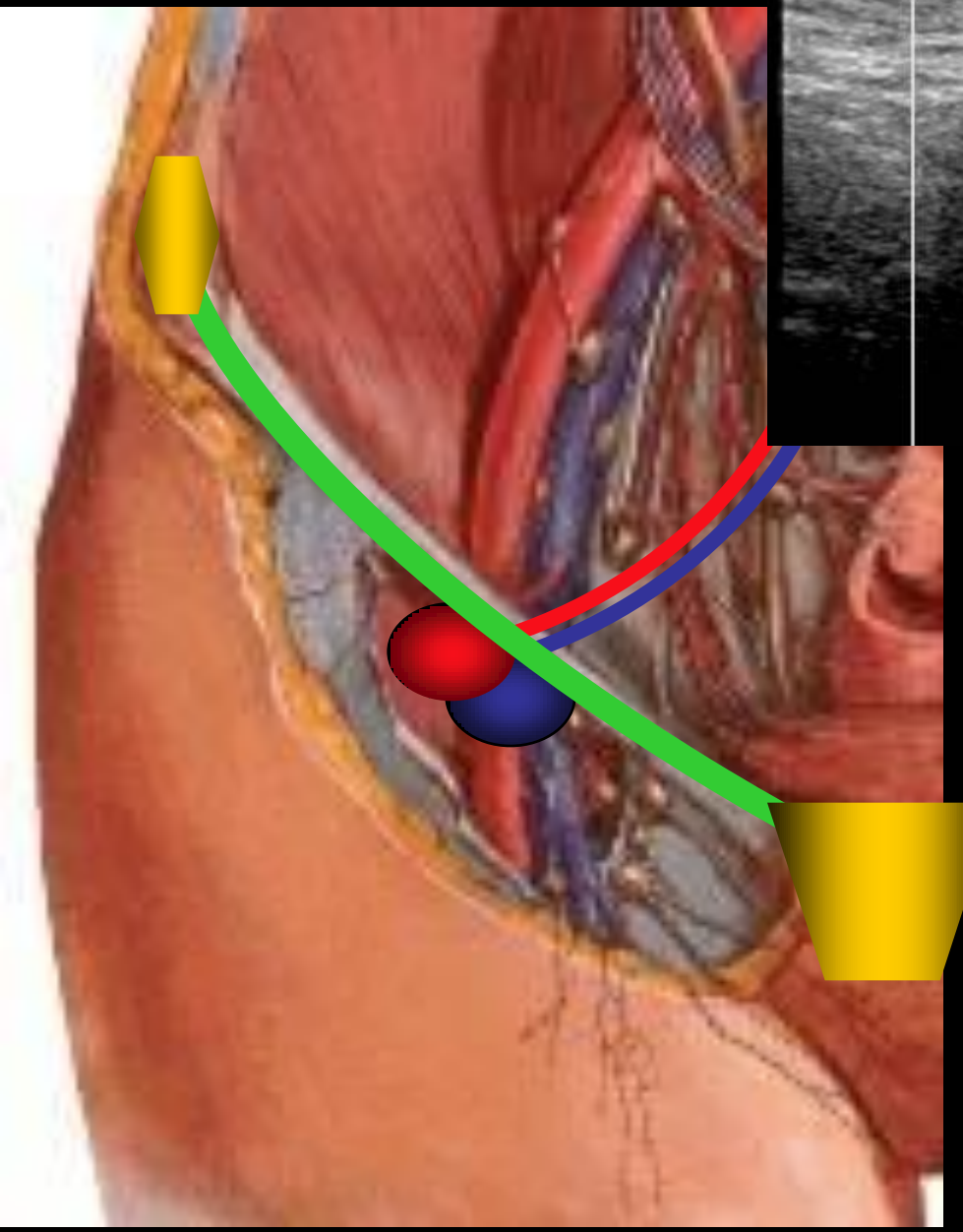


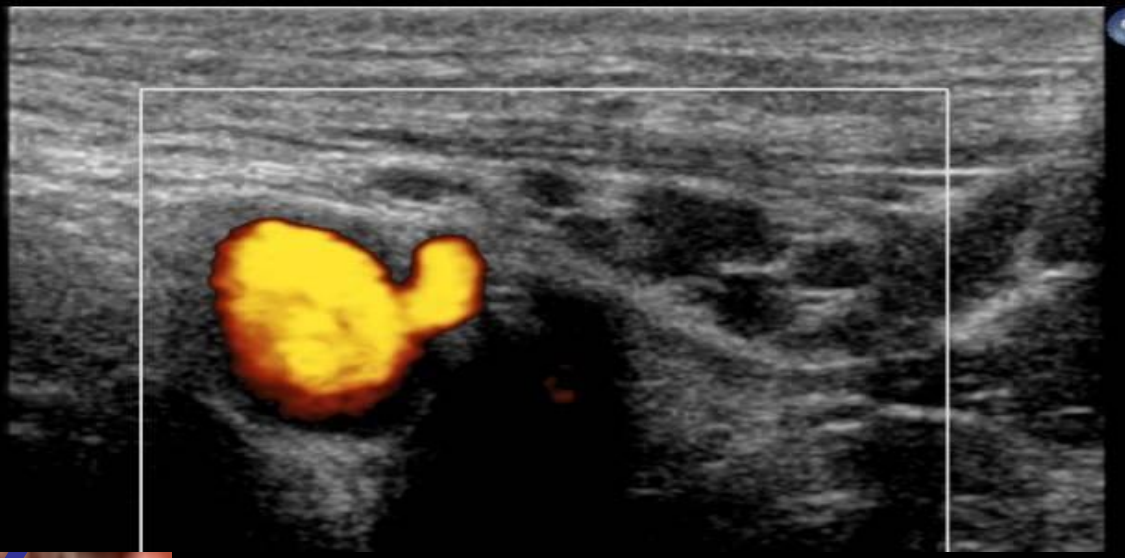


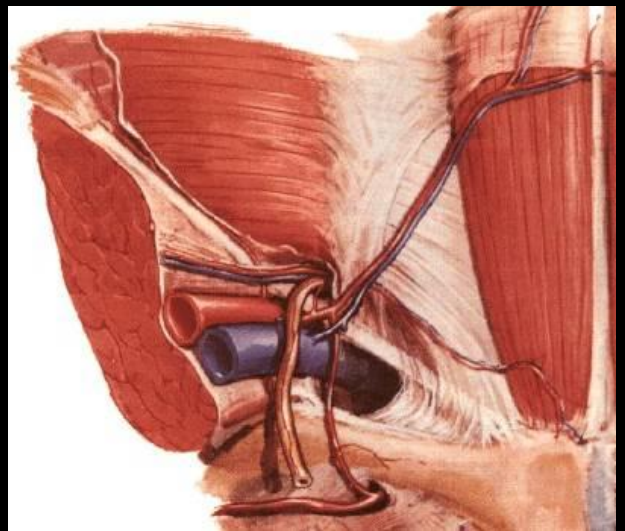


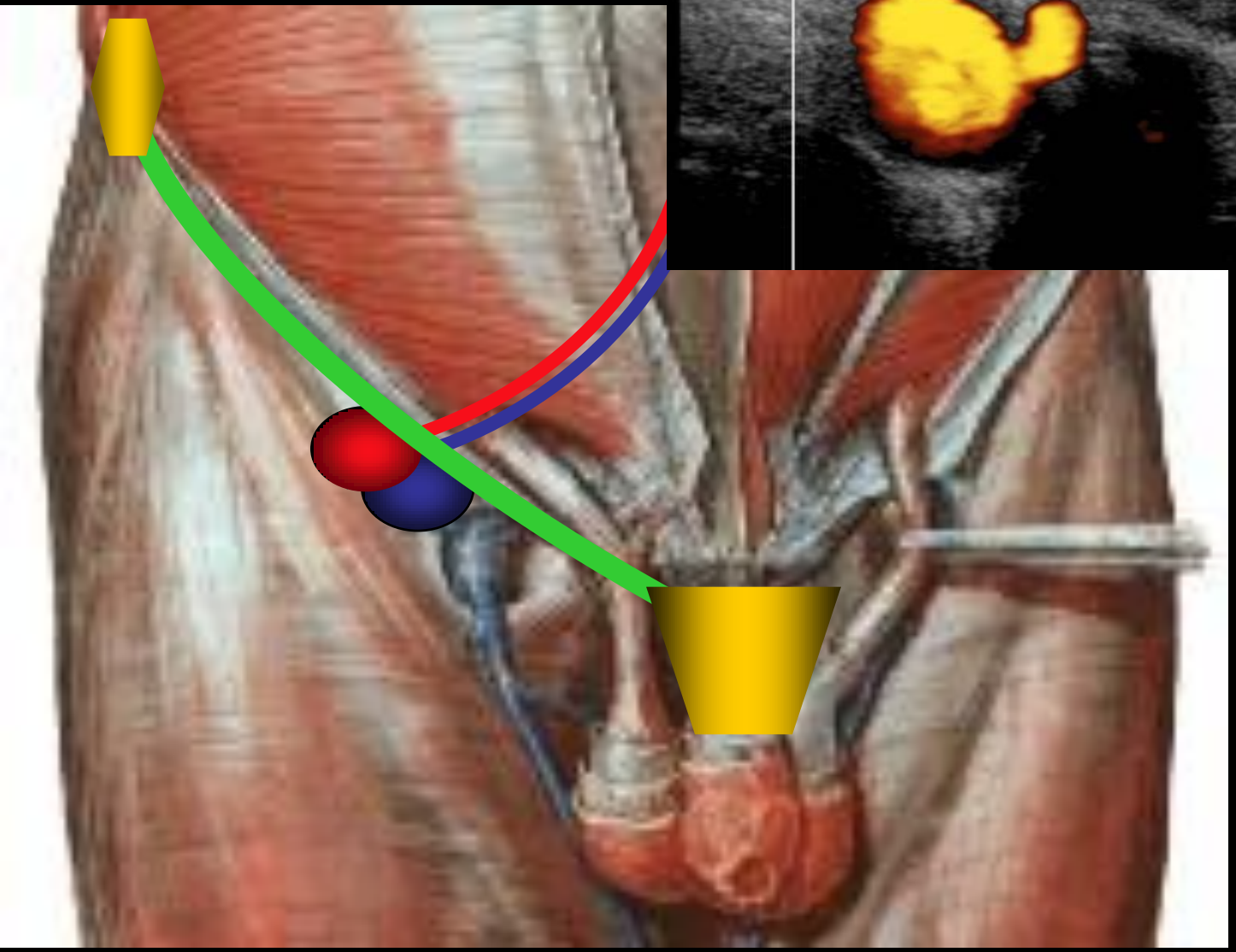


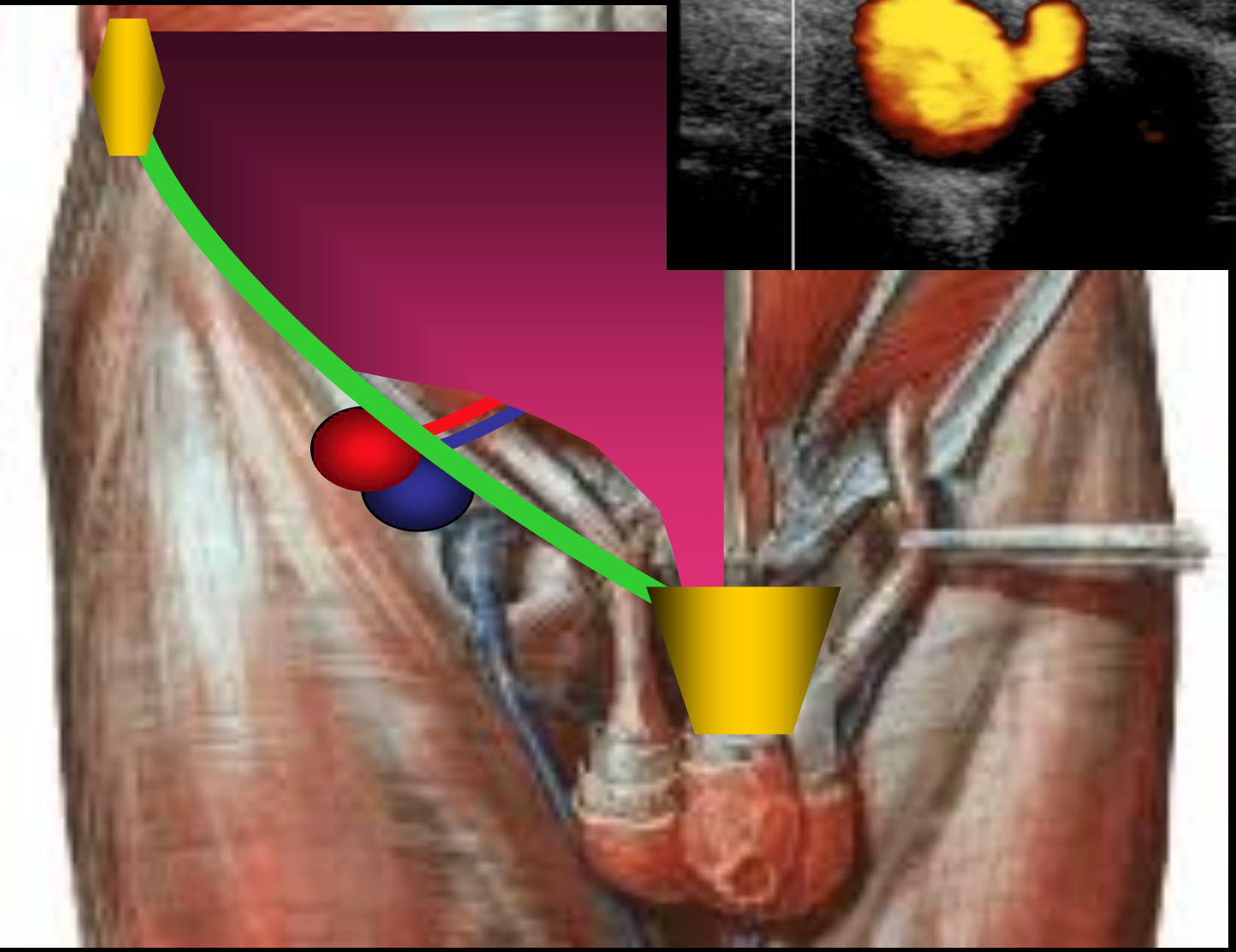


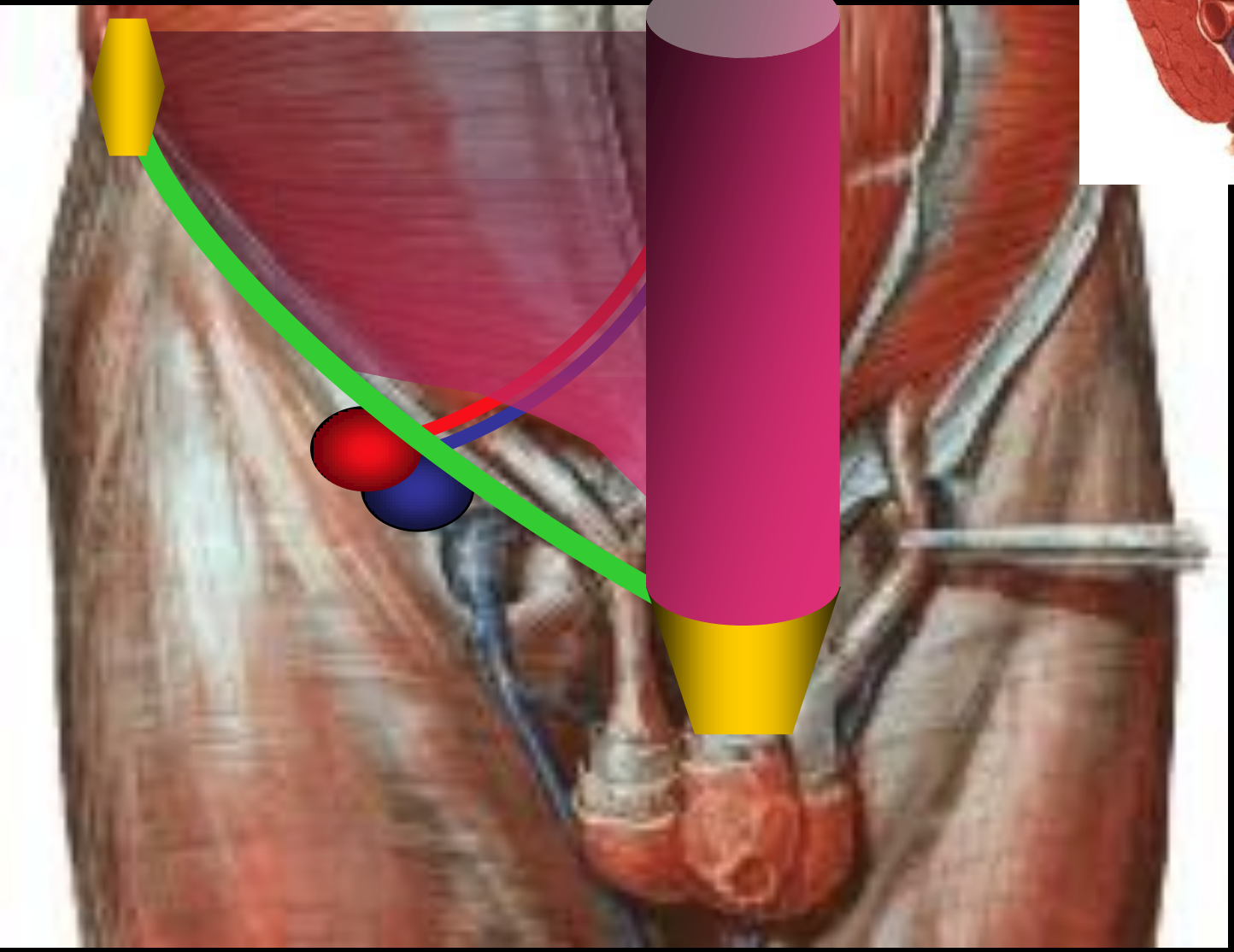


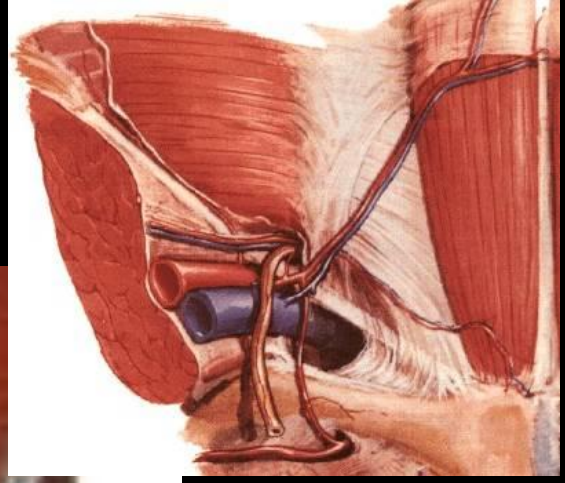


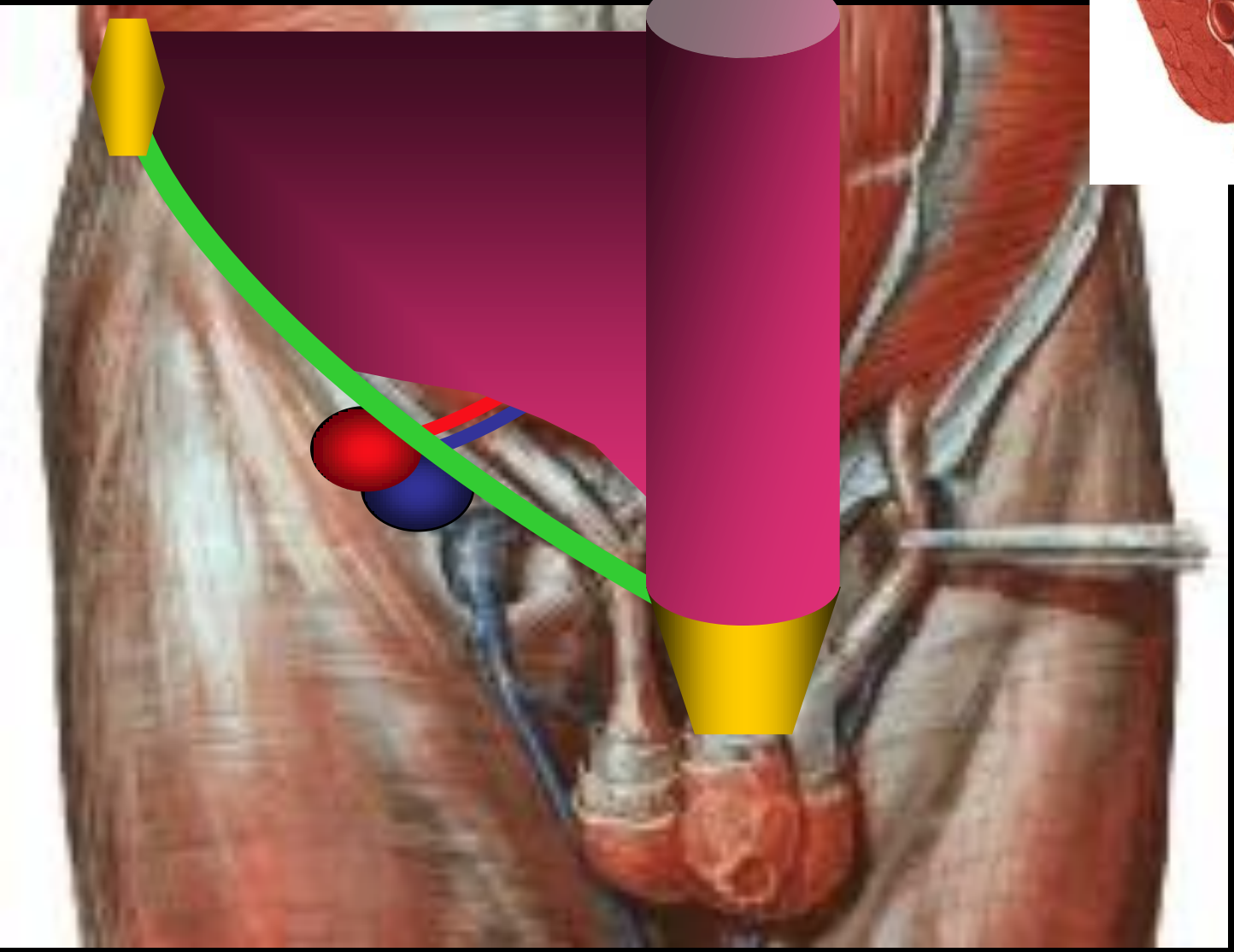


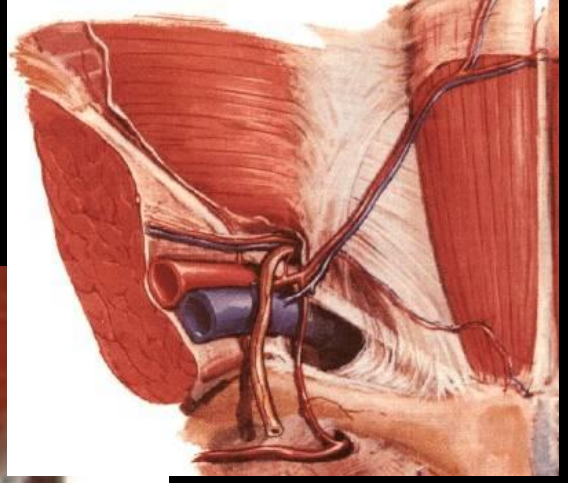


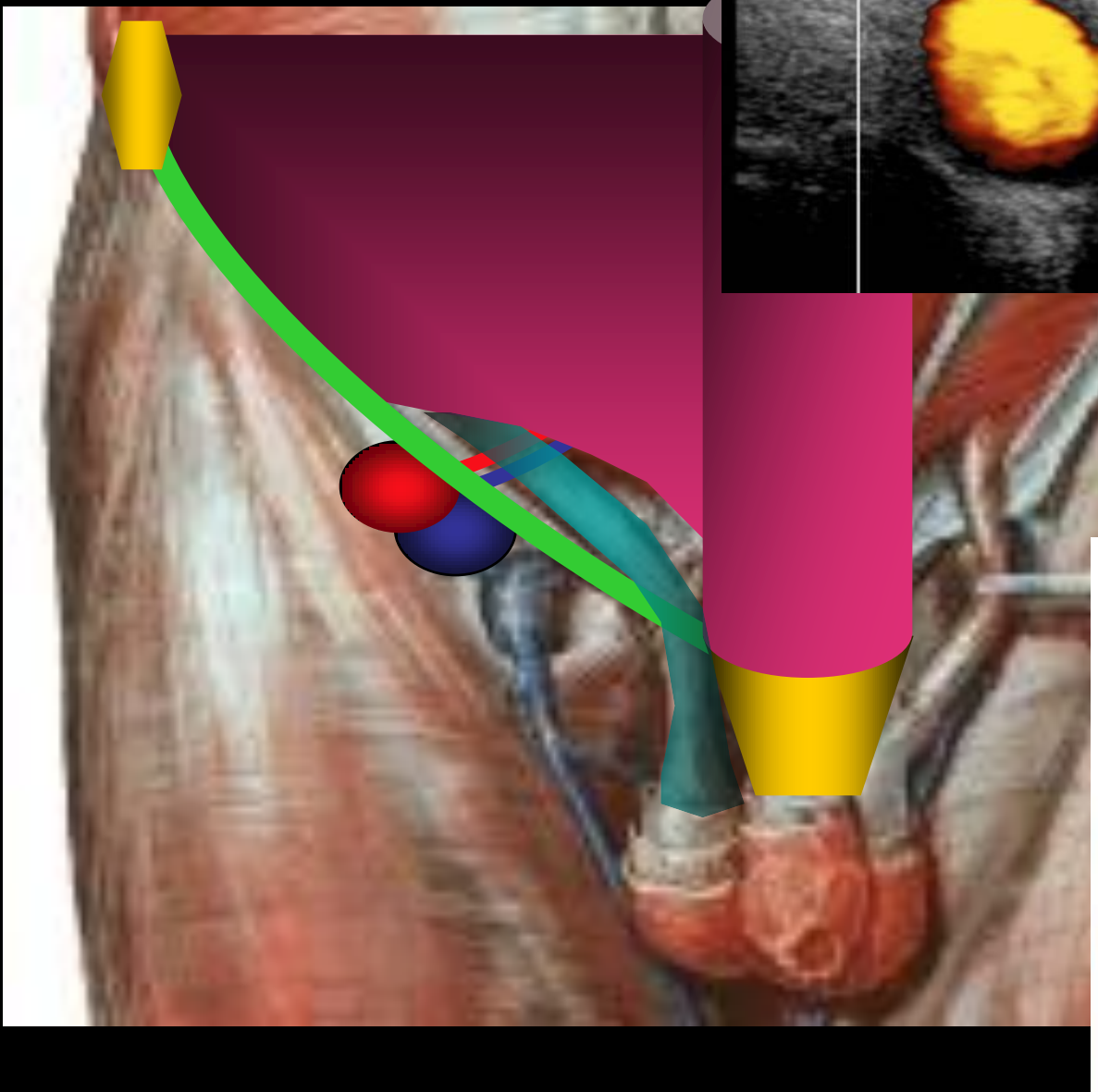


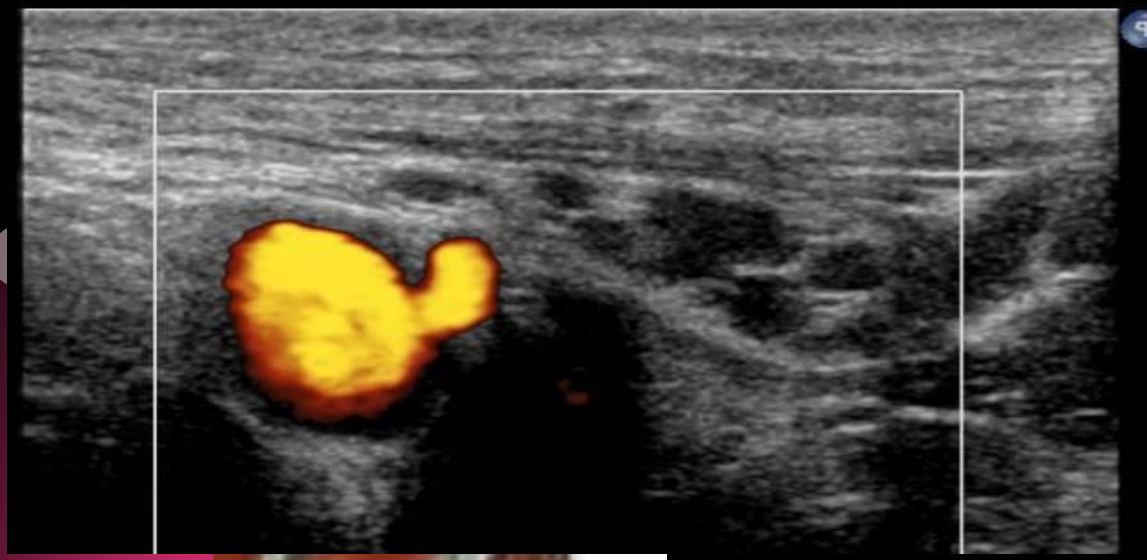


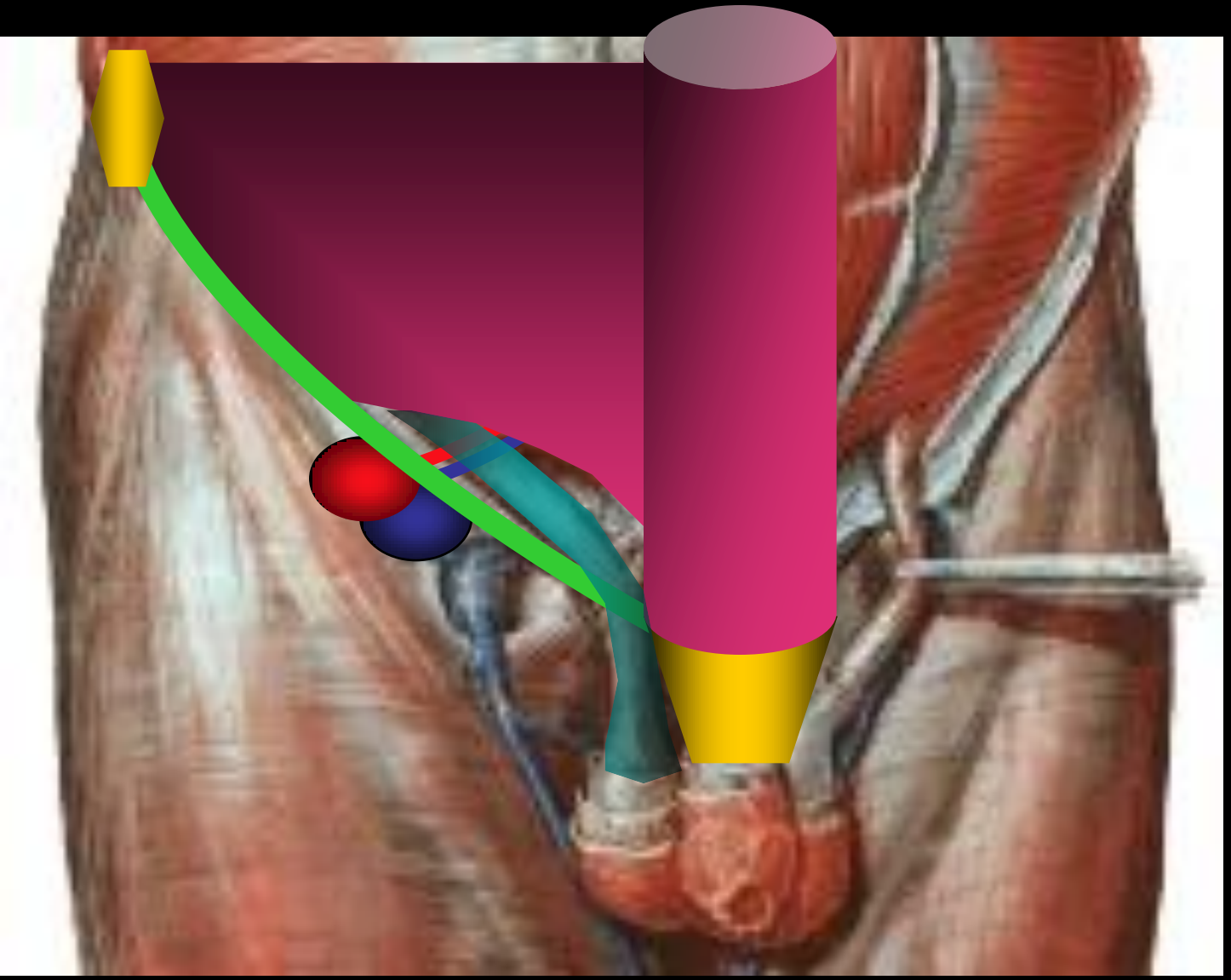


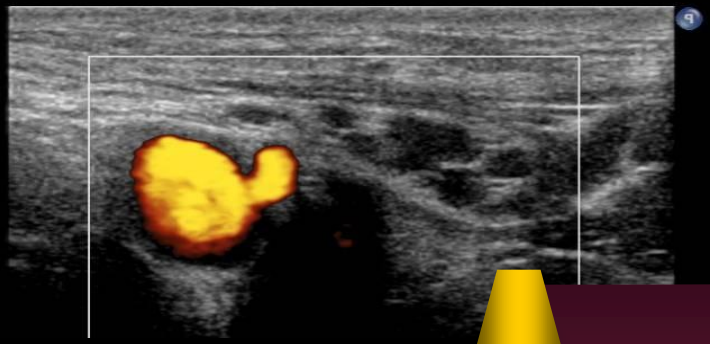


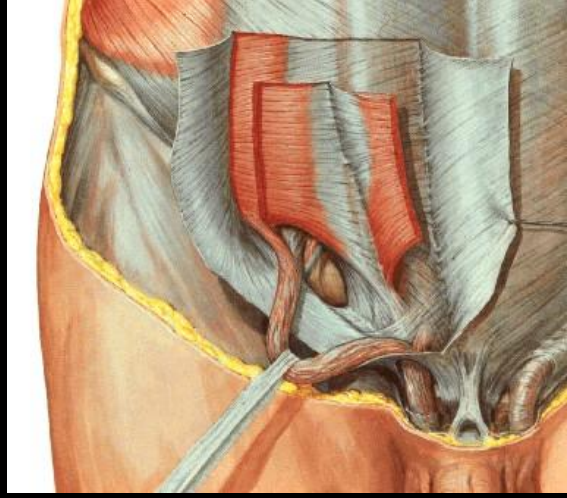


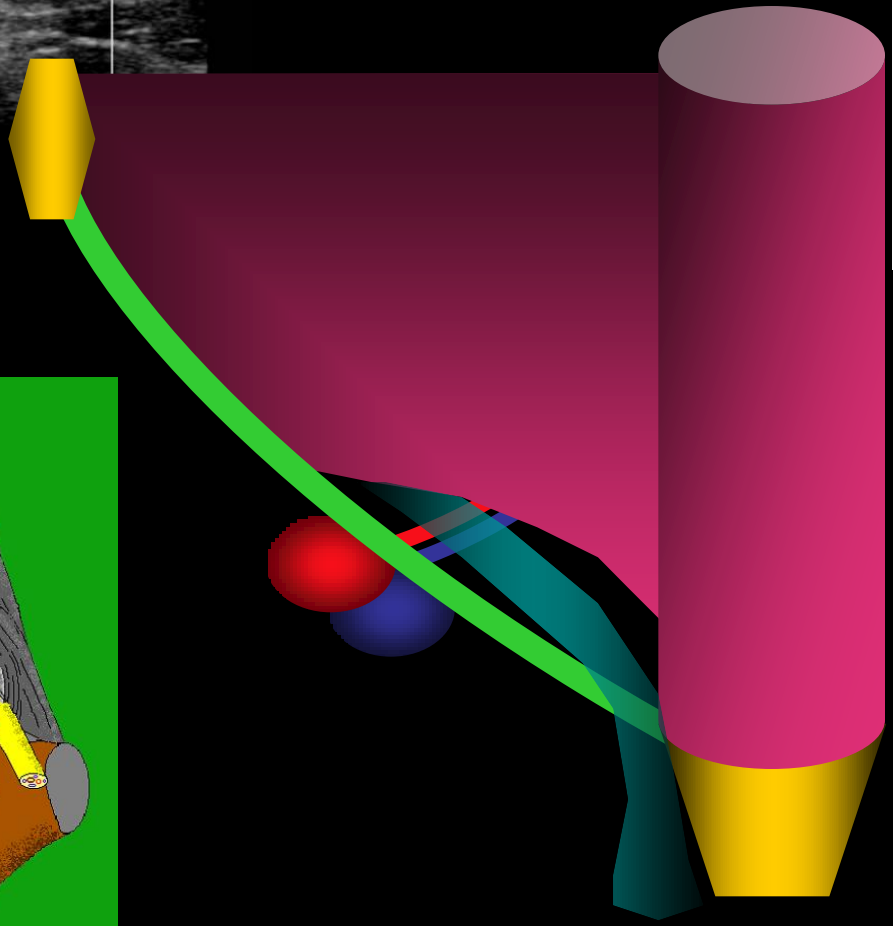


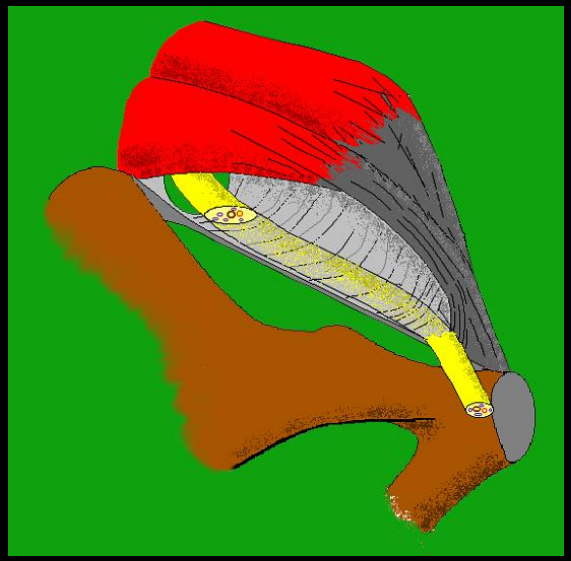




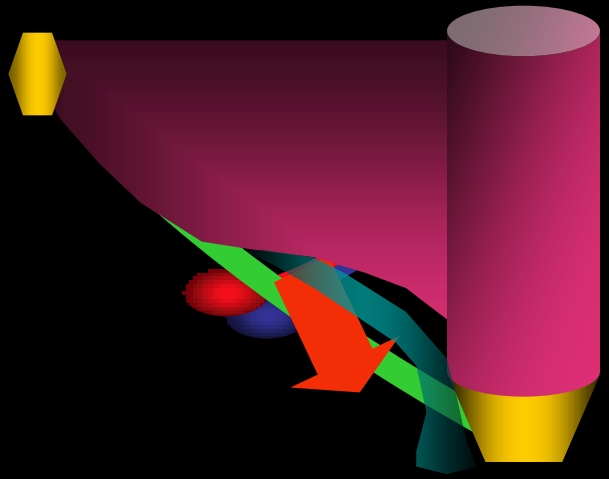






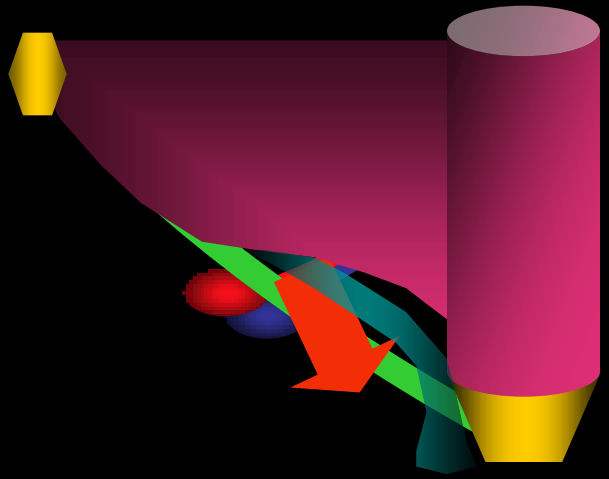


Trois types de hernie



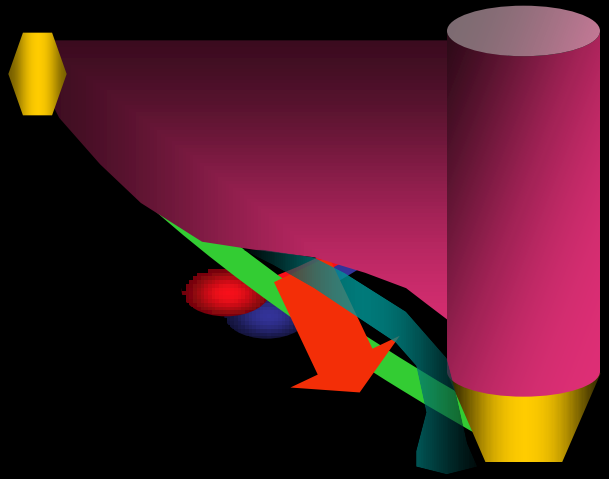
Hernie inguinale indirecte

En dehors des vaisseaux épigastriques inférieurs
au niveau de la fossette inguinale latérale



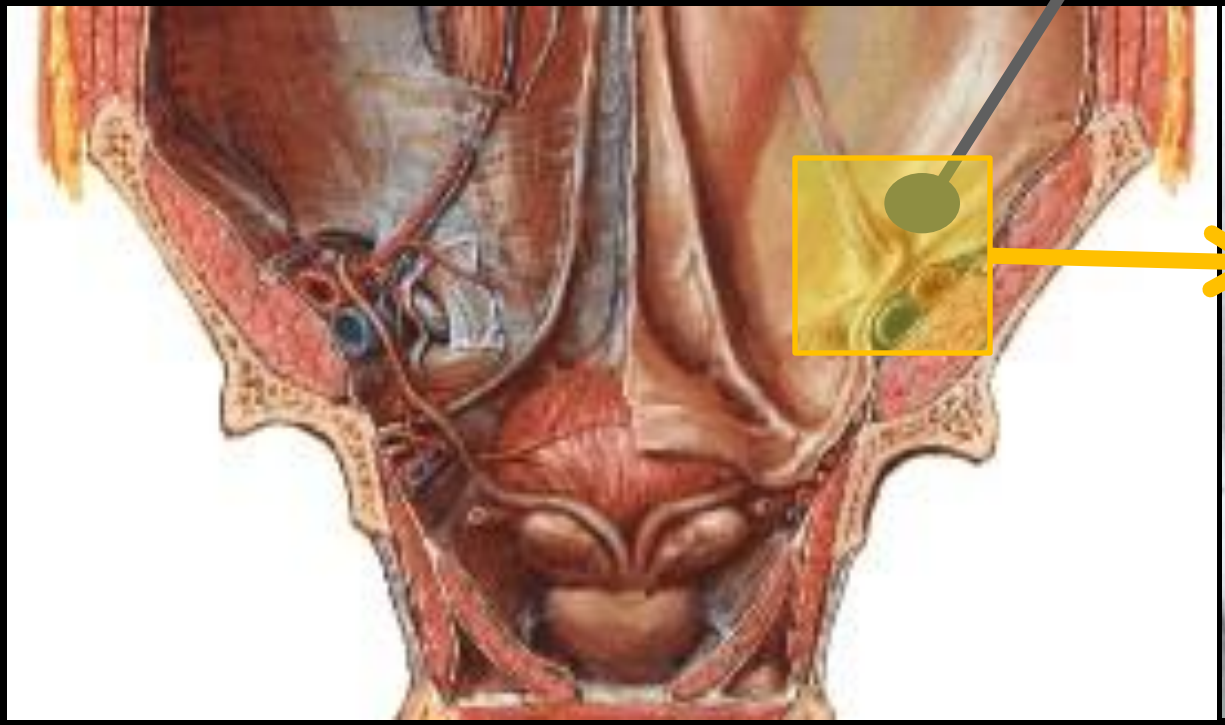
Hernie Inguinale indirecte

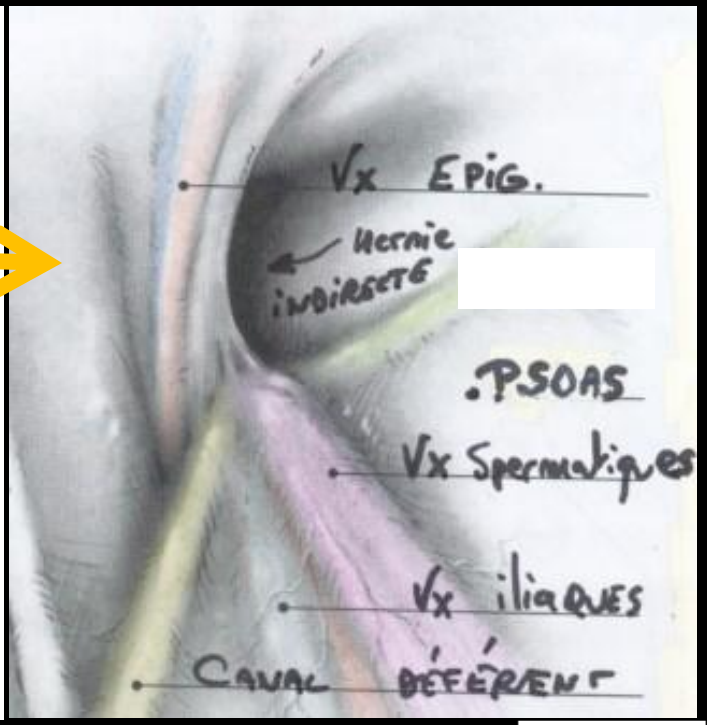
En dehors des vaisseaux épigastriques inférieurs
au niveau de la fossette inguinale latérale

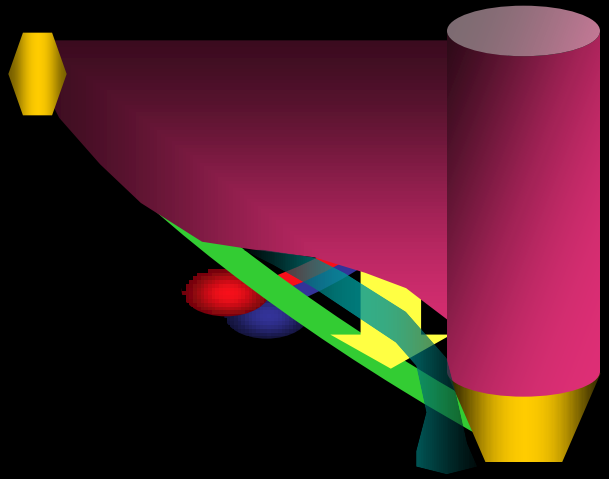


Hernie Inguinale indirecte

En dehors des vaisseaux épigastriques inférieurs
au niveau de la fossette inguinale latérale



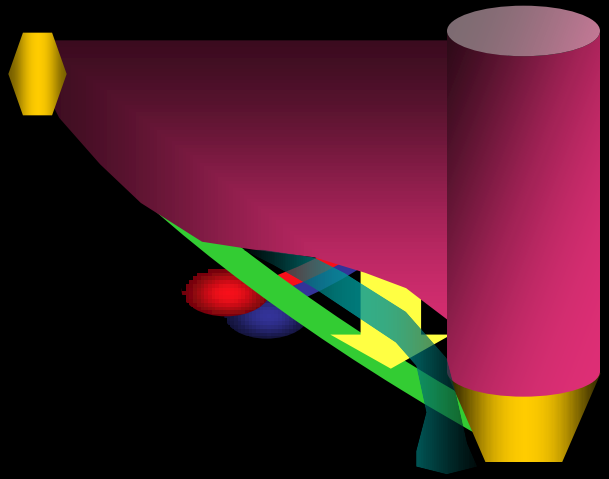




Hernie inguinale directe

En dedans des vaisseaux épigastriques inférieurs
au niveau de la fossette inguinale moyenne

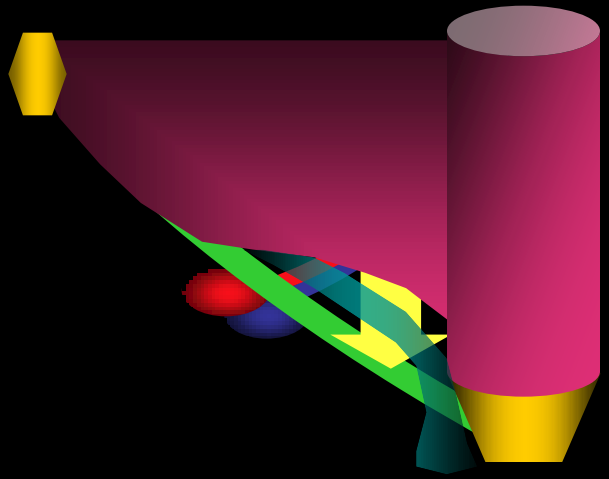
centre d'imagerie ostéo articulaire
Clinique du sport de Bordeaux Mérignac



Hernie Inguinale directe

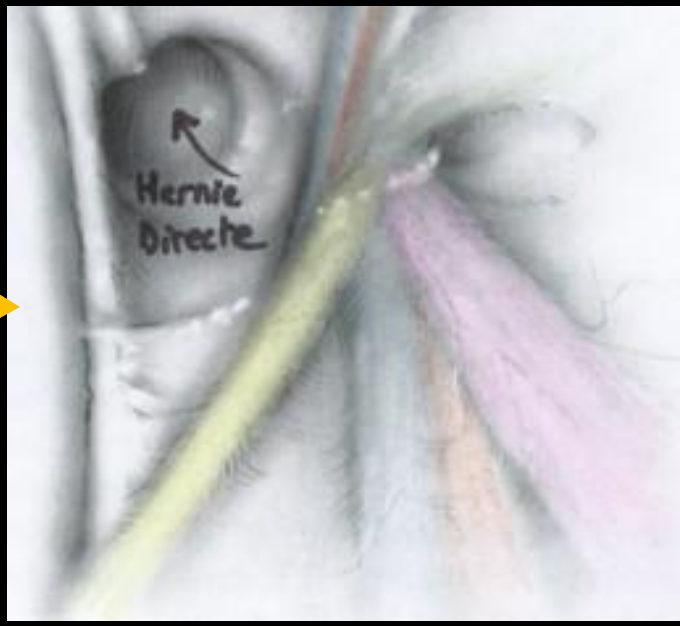
En dedans des vaisseaux épigastriques inférieurs
au niveau de la fossette inguinale moyenne

centre d'imagerie ostéo articulaire
Clinique du sport de Bordeaux Mérignac

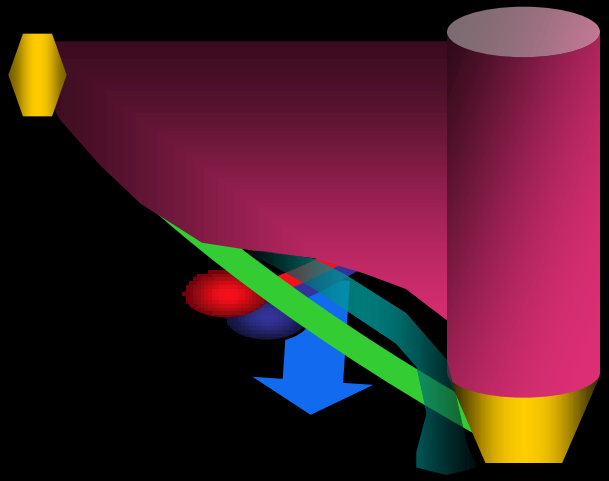


Hernie Inguinale directe

En dedans des vaisseaux épigastriques inférieurs
au niveau de la fossette inguinale moyenne

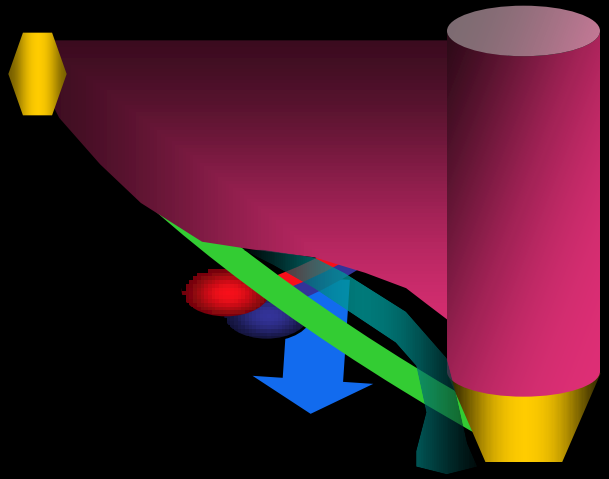


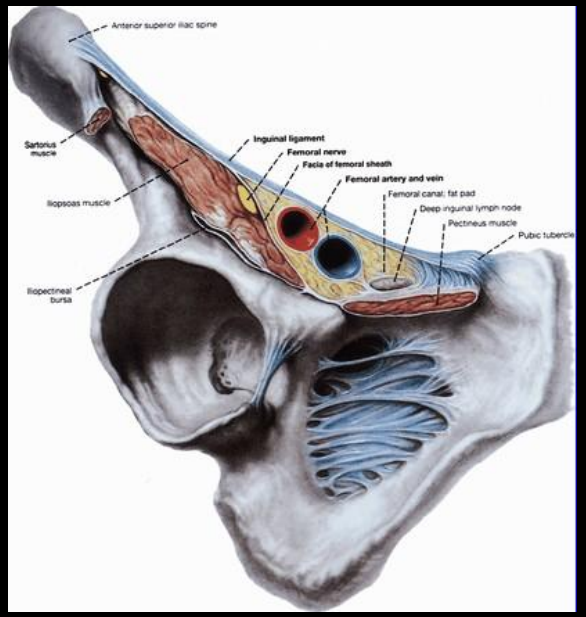
centre d'imagerie ostéo articulaire
Clinique du sport de Bordeaux Mérignac



Hernie Crurale

Sous le ligament inguinal
au niveau du canal fémoral

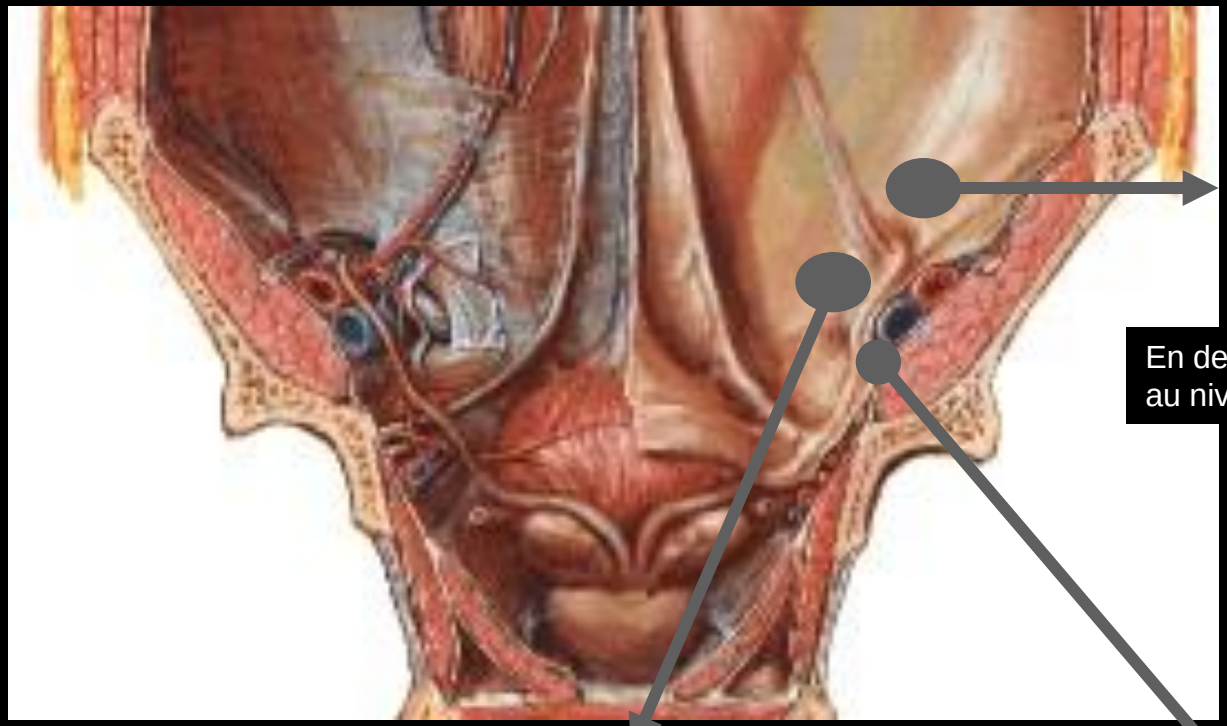




Hernie crurale

Sous le ligament inguinal
au niveau du canal fémoral

centre d'imagerie ostéo articulaire
Clinique du sport de Bordeaux Mérignac



Hernie Inguinale indirecte

En dehors des vaisseaux épigastriques inférieurs
au niveau de la fossette inguinale latérale

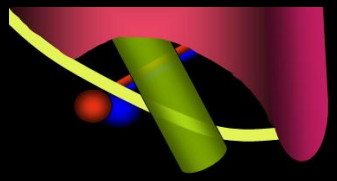
Hernie Inguinale directe

En dedans des vaisseaux épigastriques inférieurs
au niveau de la fossette inguinale moyenne

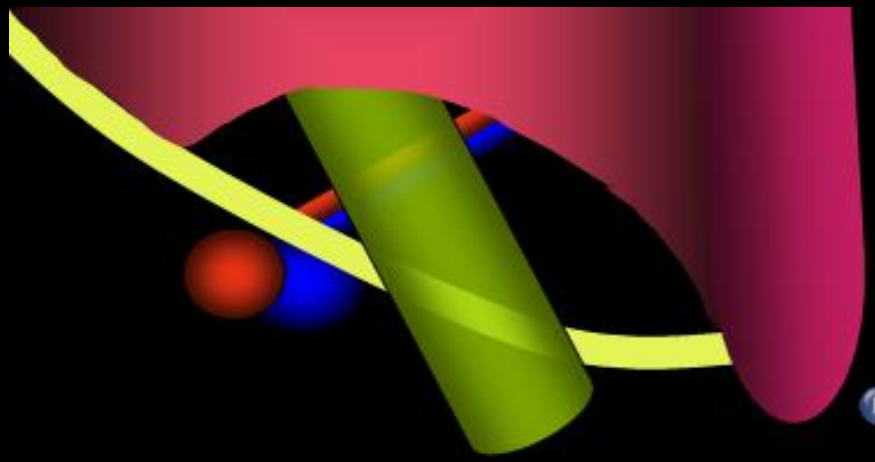
Hernie crurale

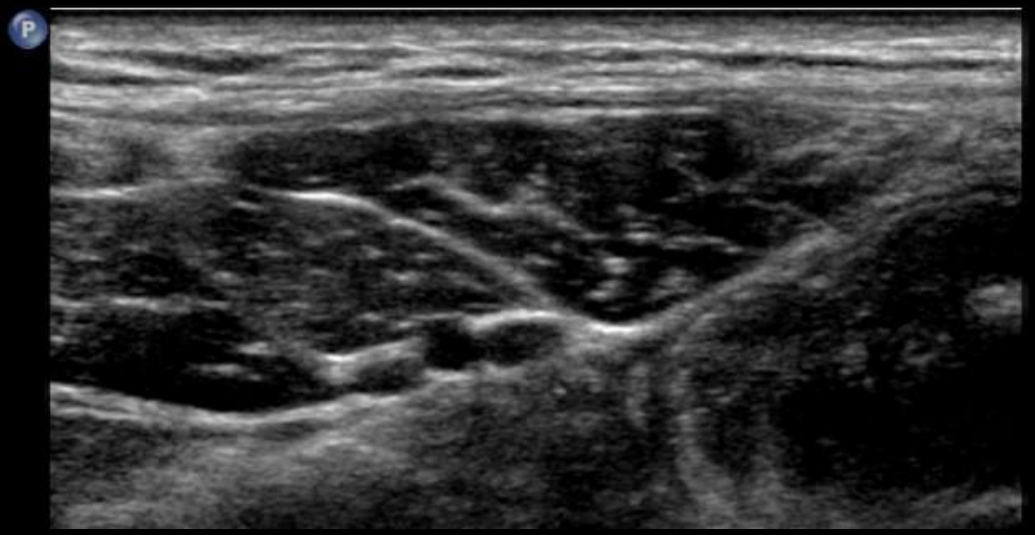
Sous le ligament inguinal
au niveau du canal fémoral

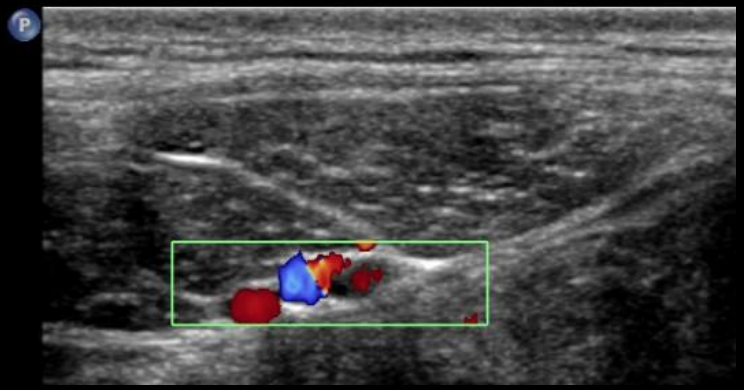
Les trois types de hernie



Echographie de l’orifice inguinal profond







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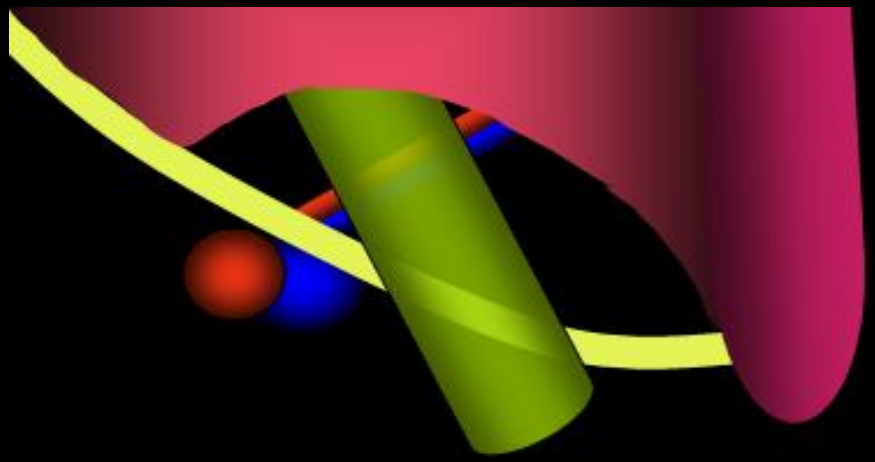
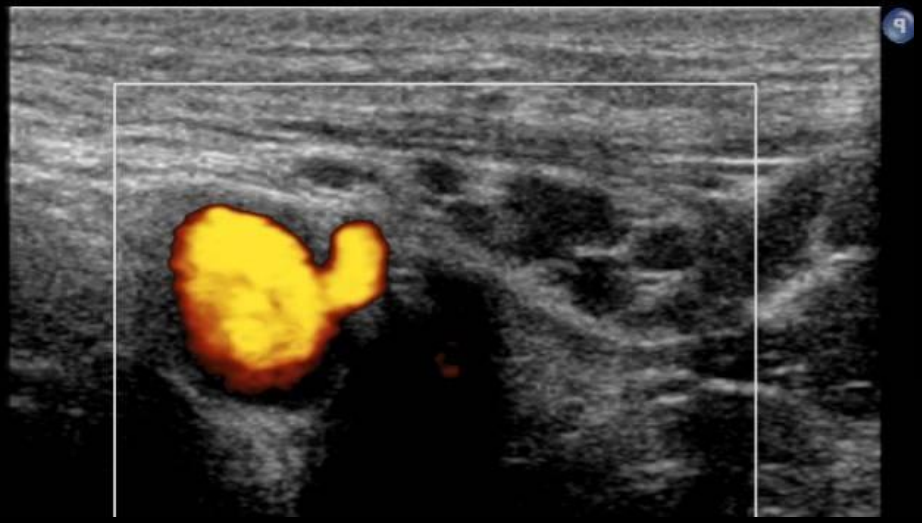
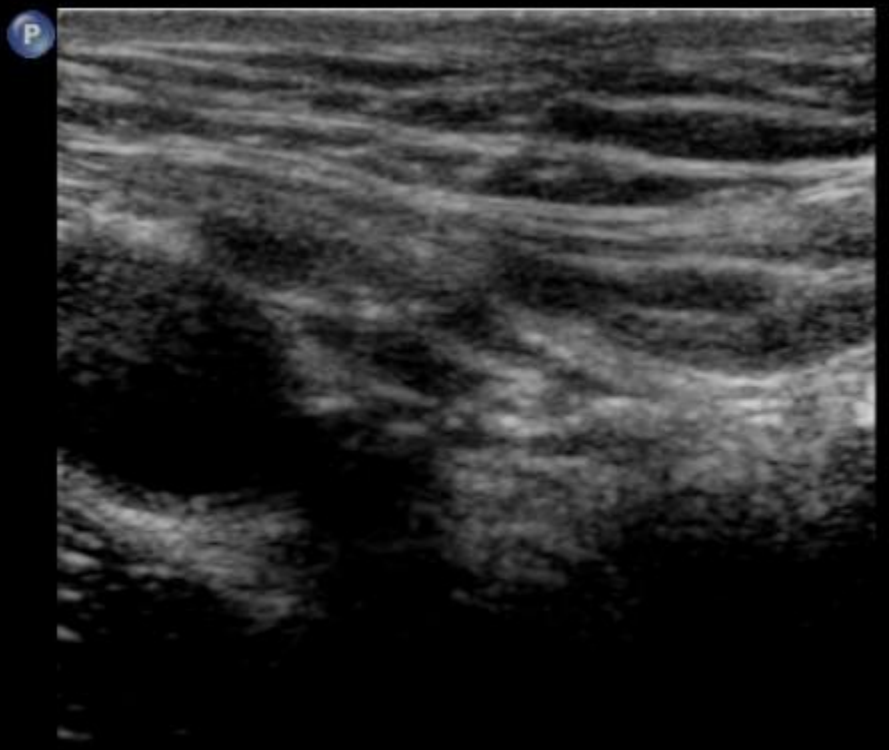
Echographie de l'orifice inguinal profond







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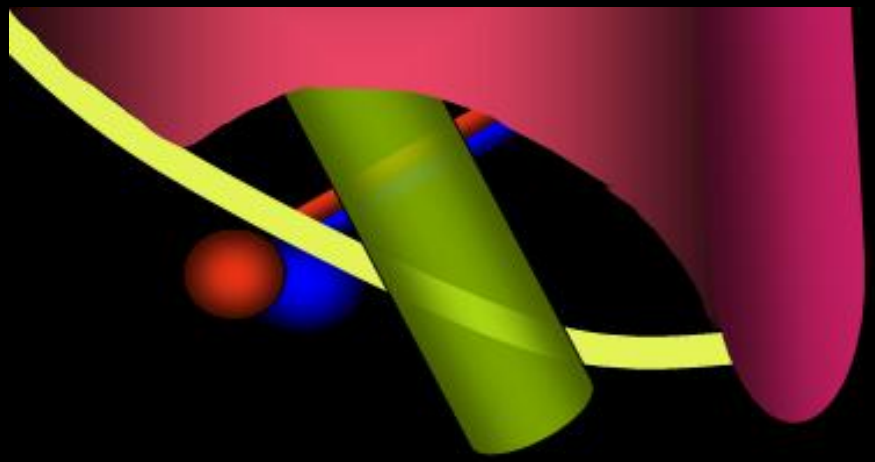
Echographie de l’orifice inguinal profond



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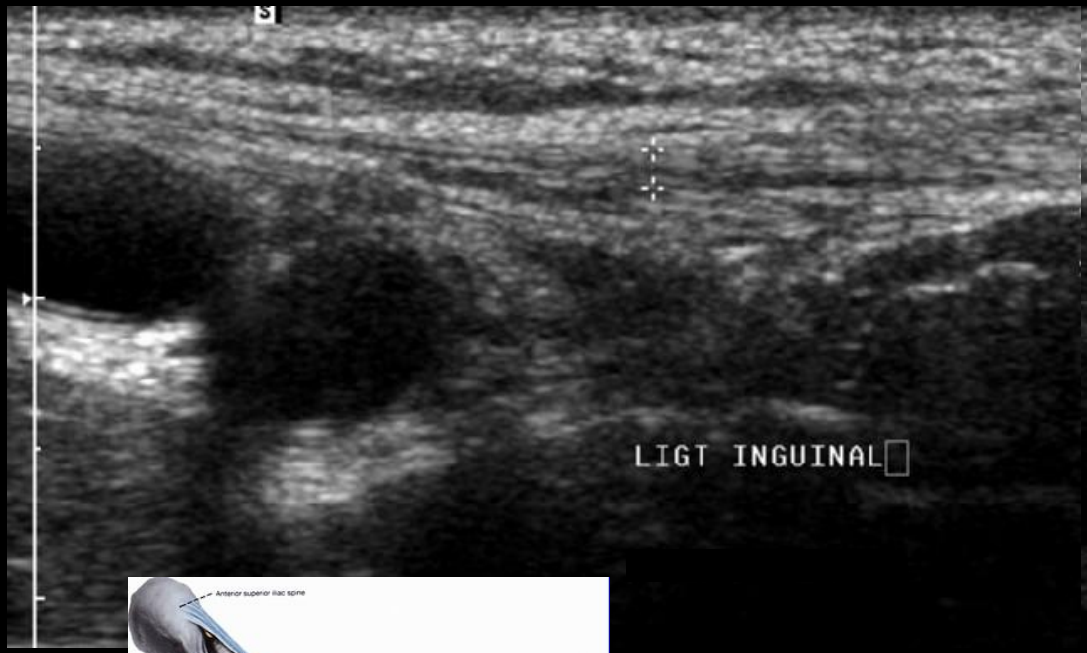
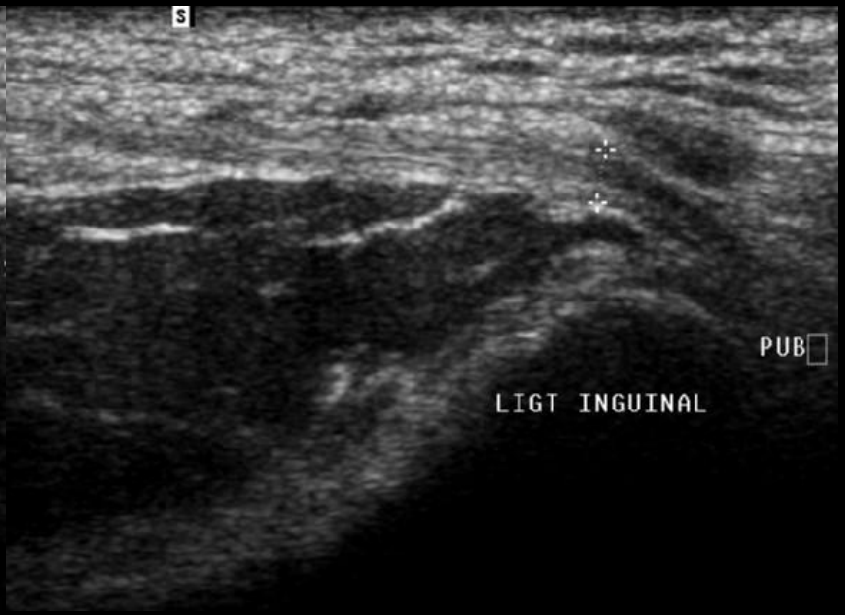
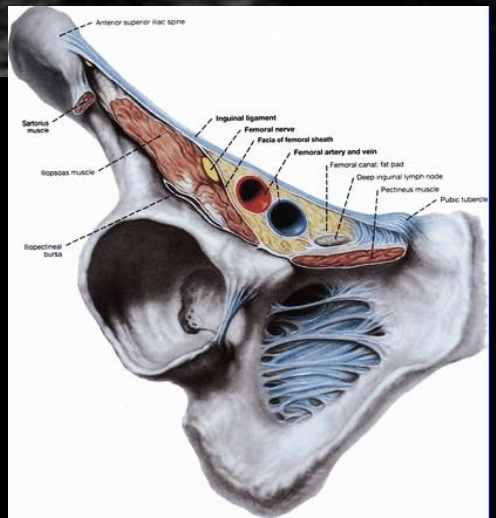
Echographie du canal fémoral







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Echographie

La recherche échographique
de Hernie inguinale se fait :

- au repos allongé

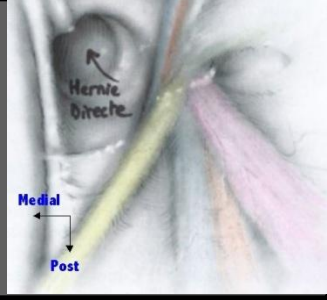
- en valsalva allongé

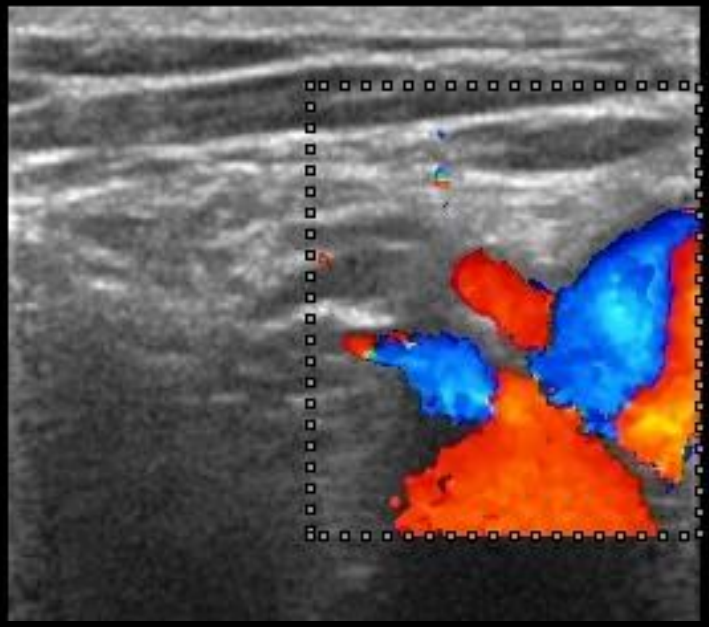
- debout et valsalva si nécessaire

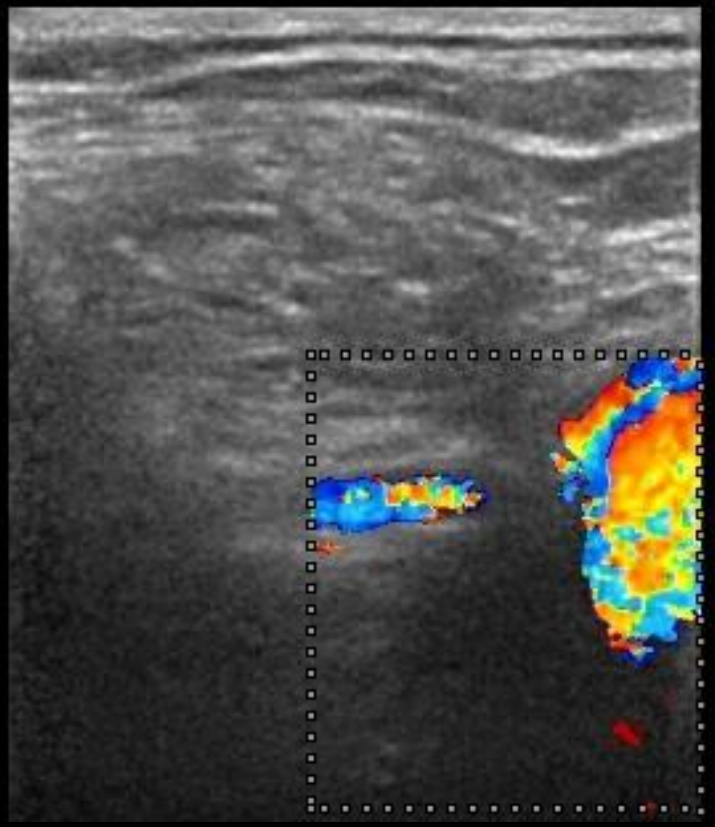
Le repère majeur est l'ostium de
l'artère épigastrique inférieure

Bradley - 2003 : échographie S et Sp sup à 85% pour
la détection des hernies inguinales occultes sur 120 sportifs opérés

Hernie inguinale directe

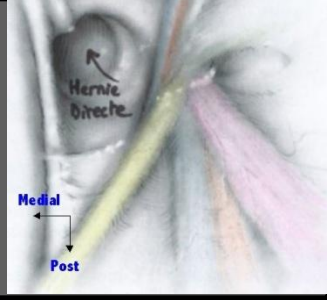


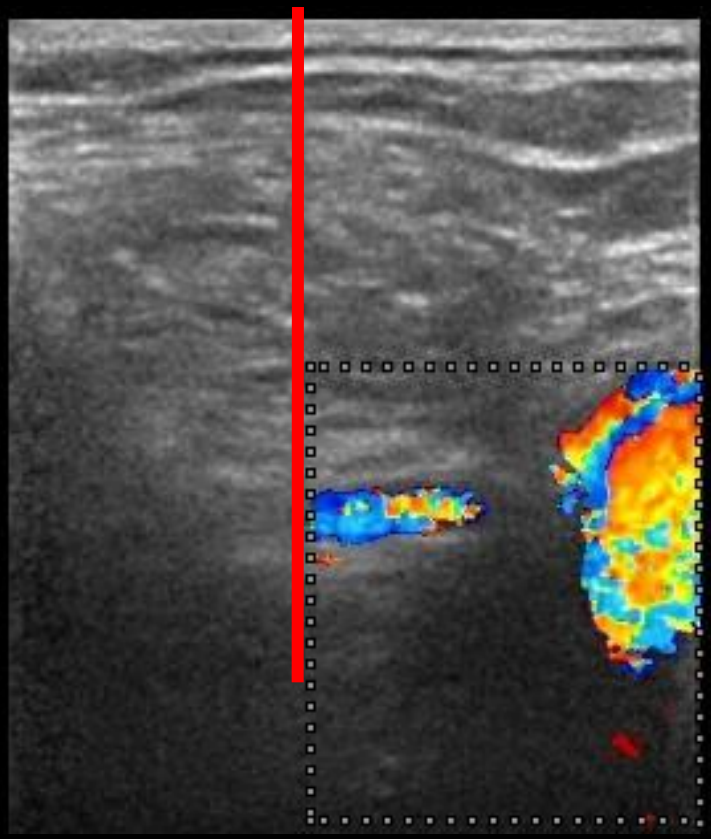




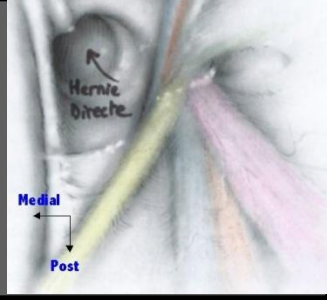
centre d'imagerie ostéo articulaire
Clinique du sport de Bordeaux Mérignac

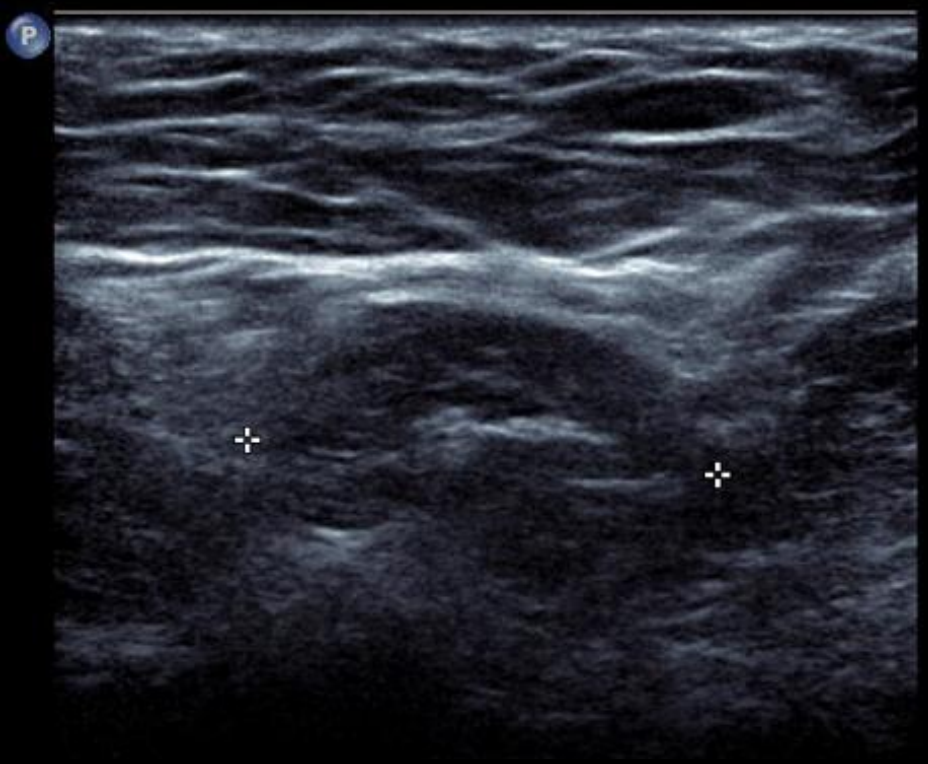
Hernie inguinale directe

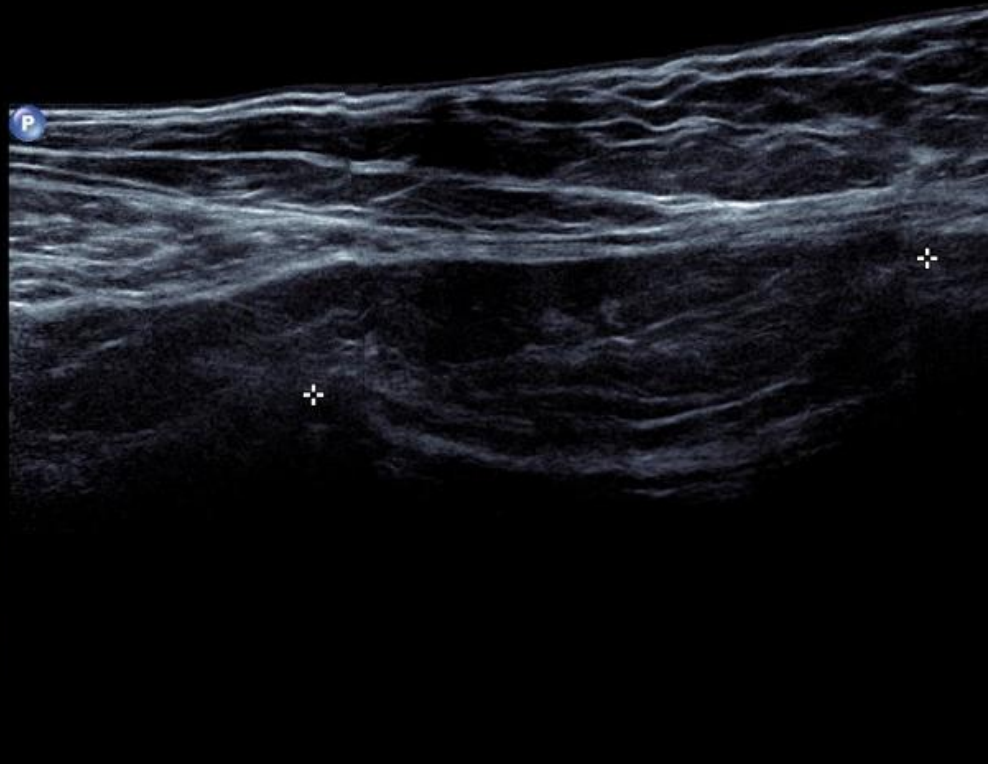


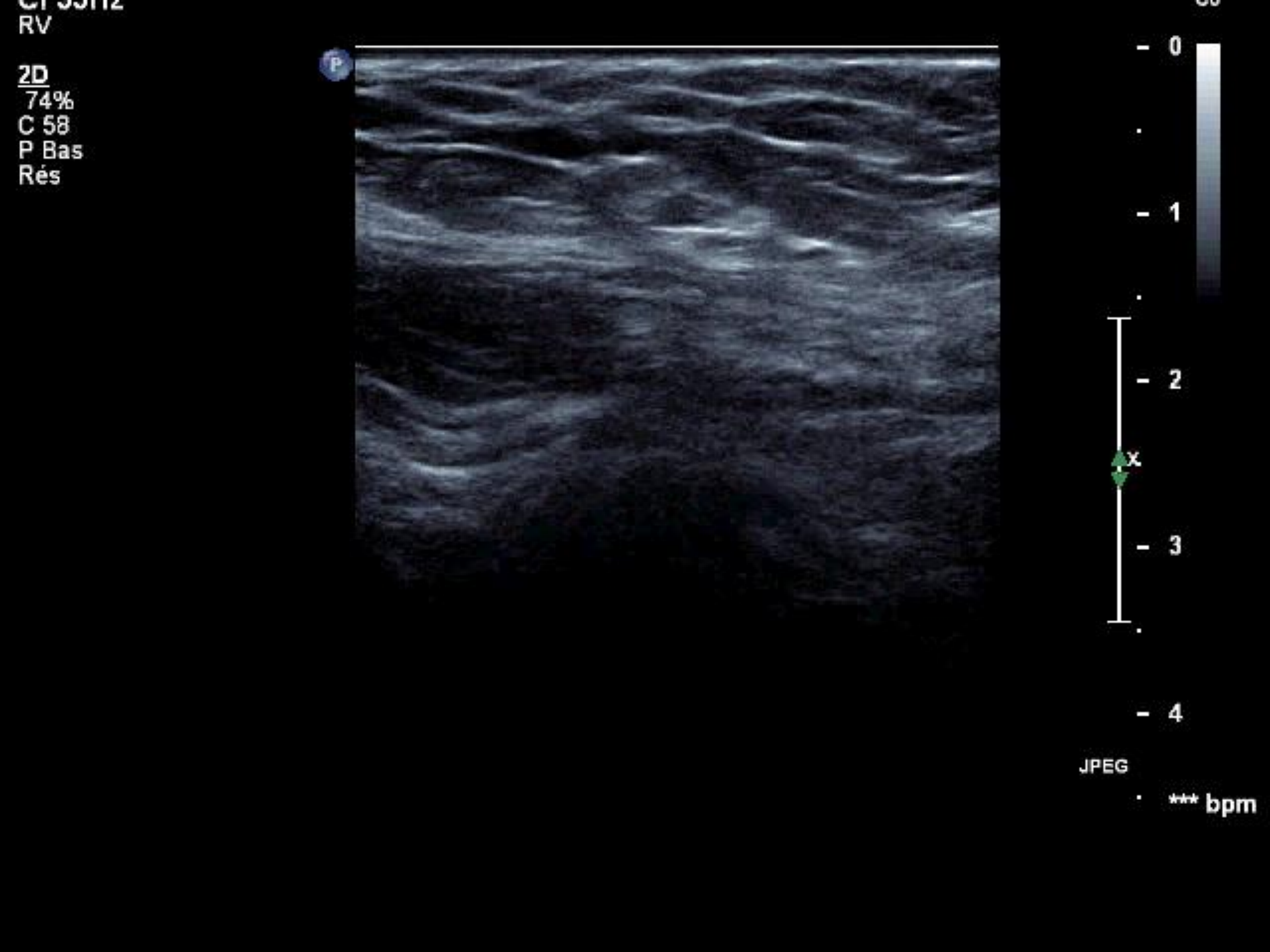


Hernie inguinale directe








RV
2D
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P Bas
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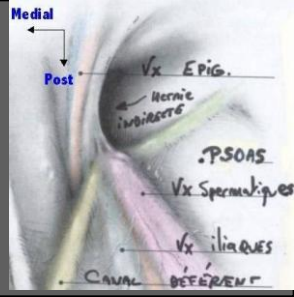
Hernie inguinale indirecte



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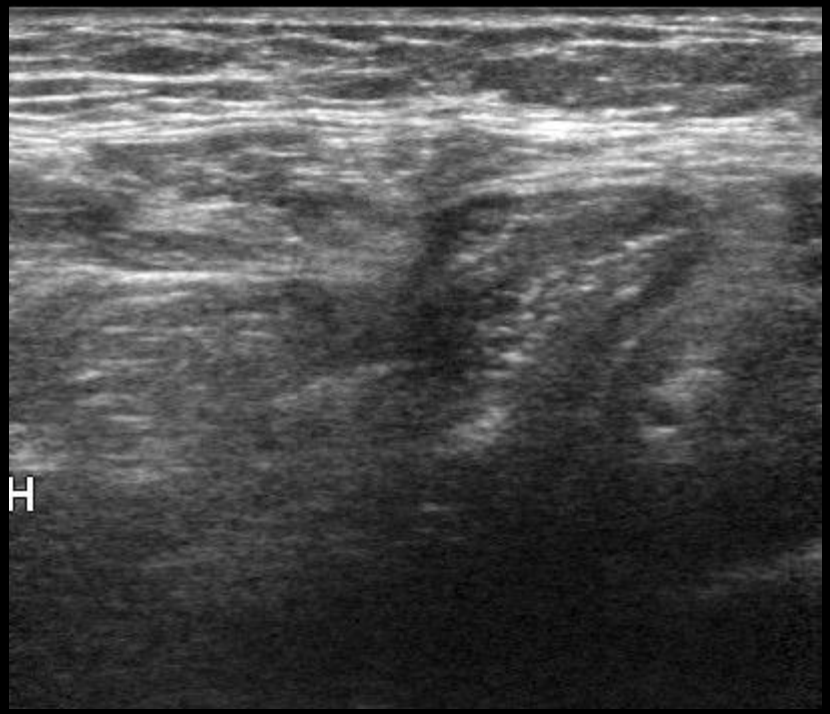
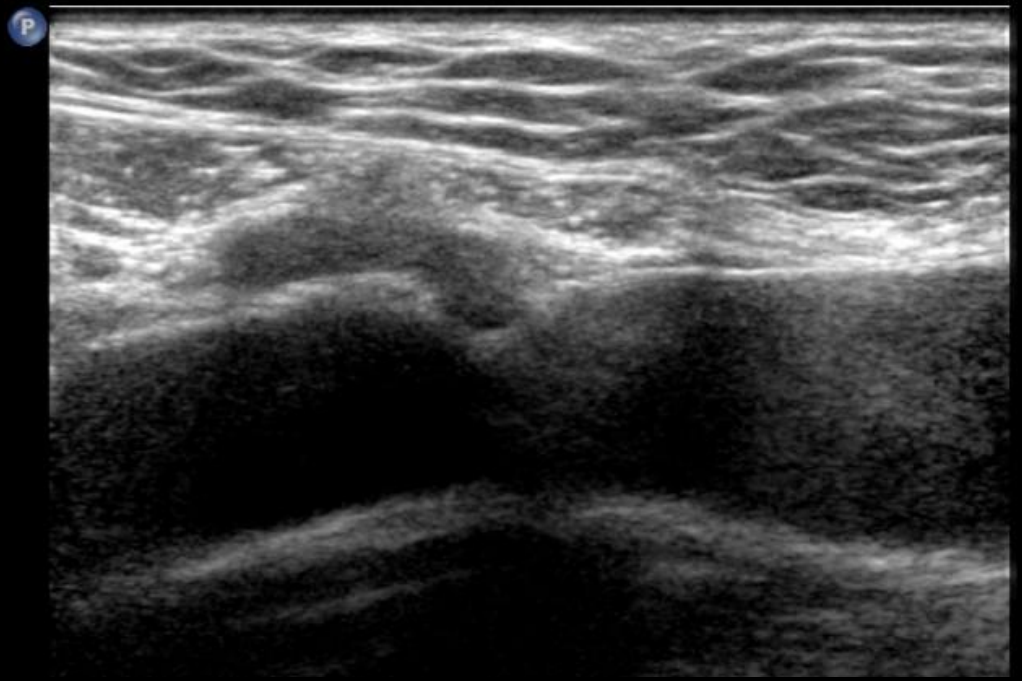
Hernie inguinale indirecte





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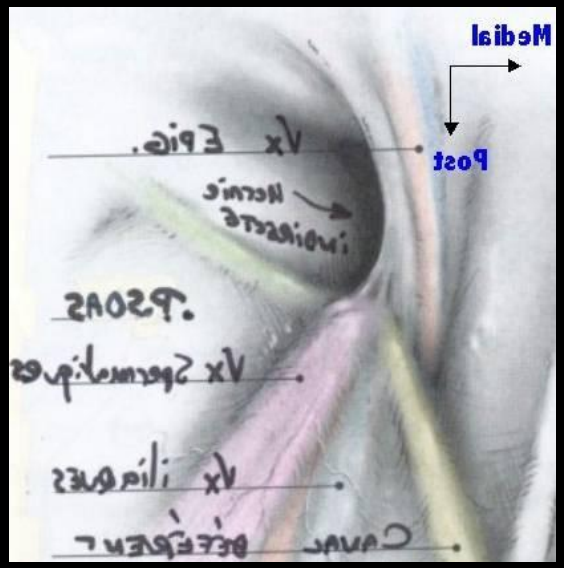

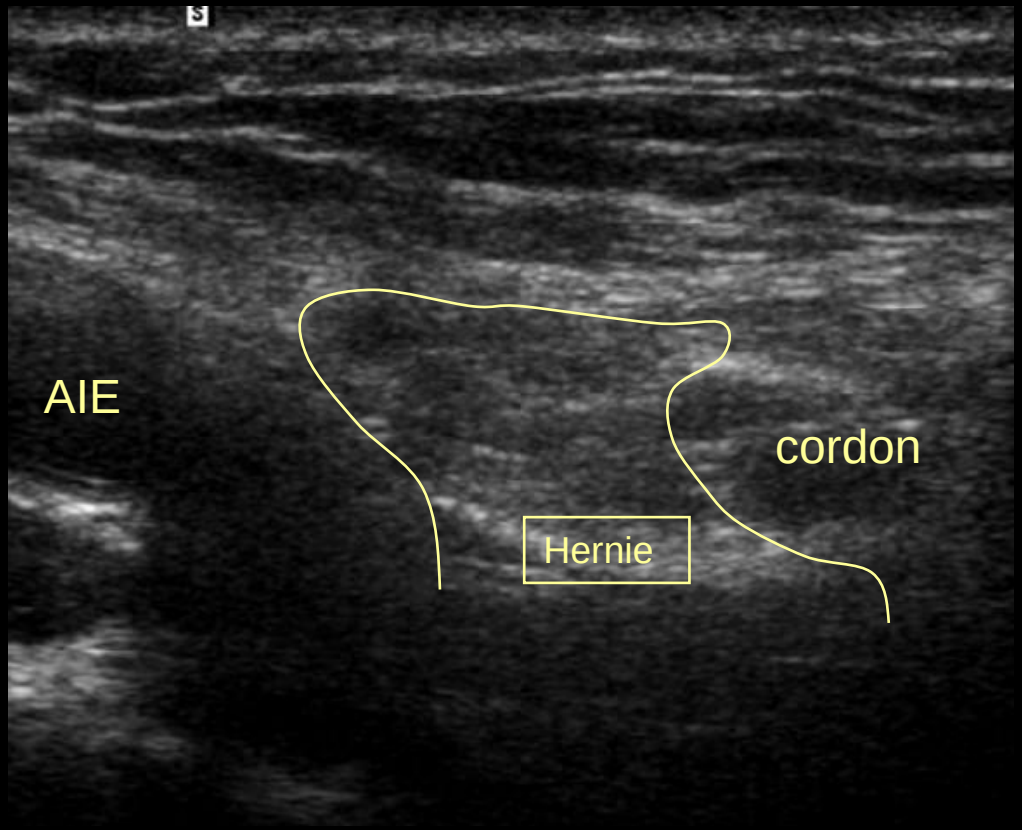

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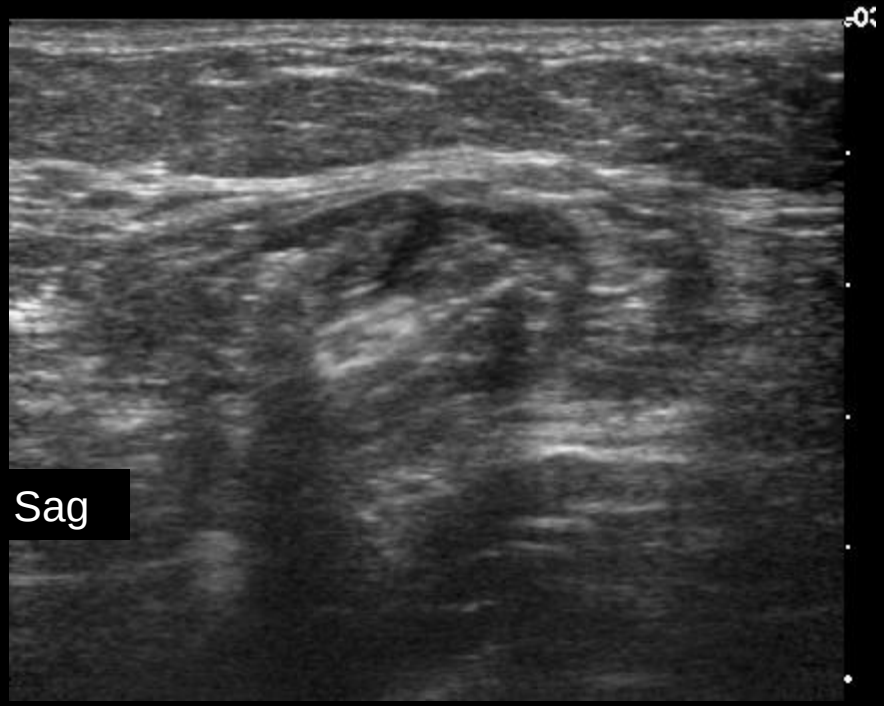
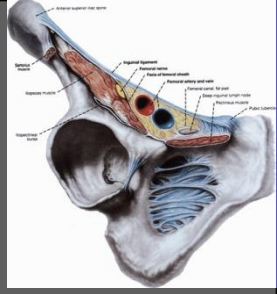
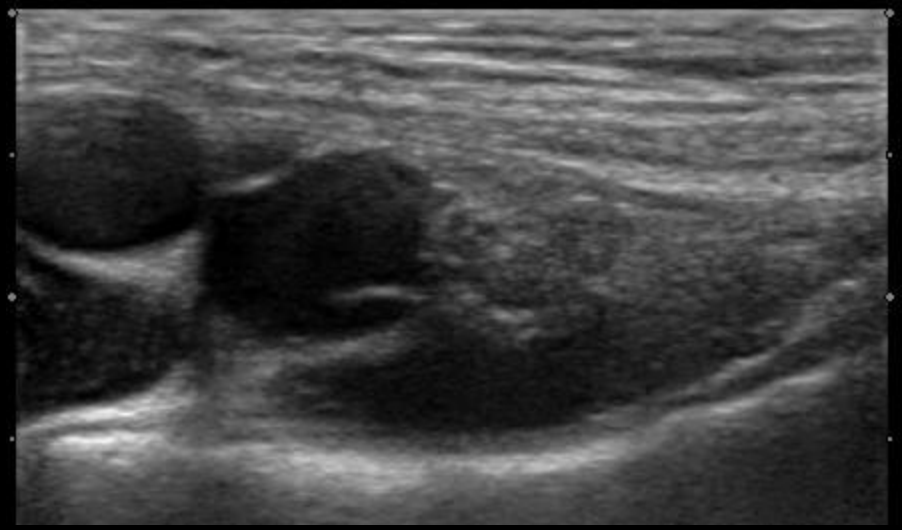
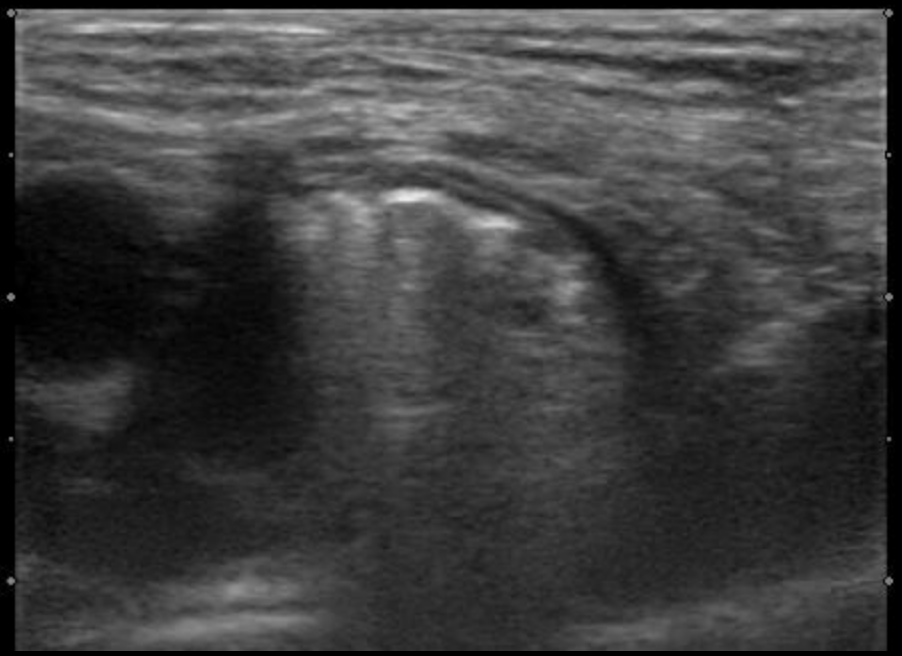
Hernie inguinale indirecte



Hernie crurale







Vasalva

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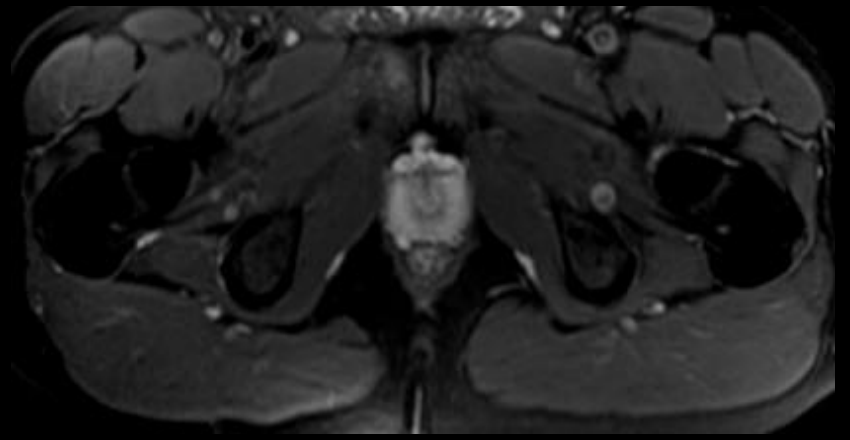
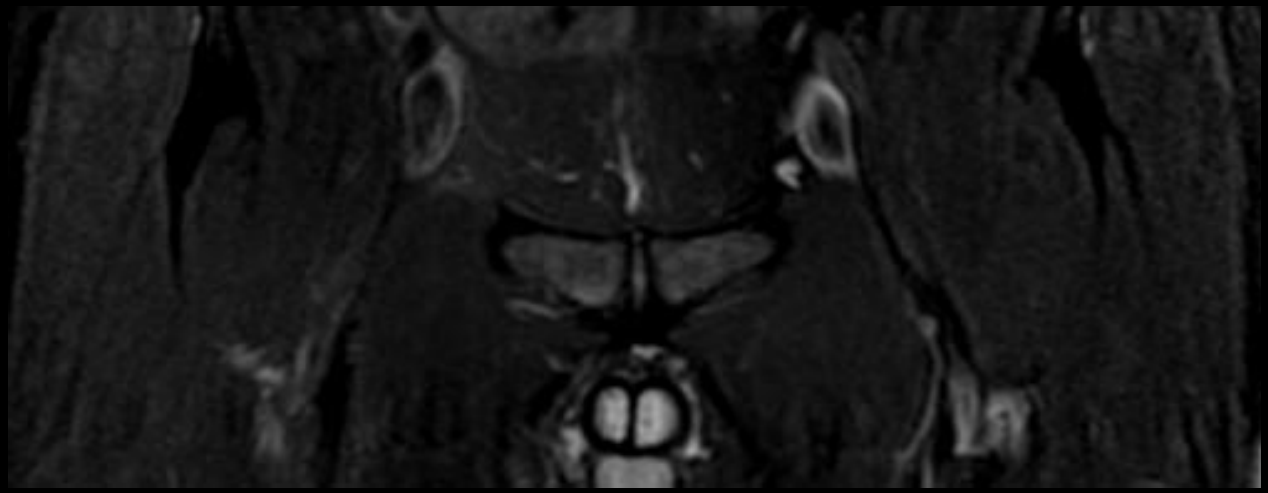
IRM

IRM

Elle montre très bien l’ostéo arthropathie pubienne (Gebothni et Roger 96, Barile 2000, Orchard 2001)





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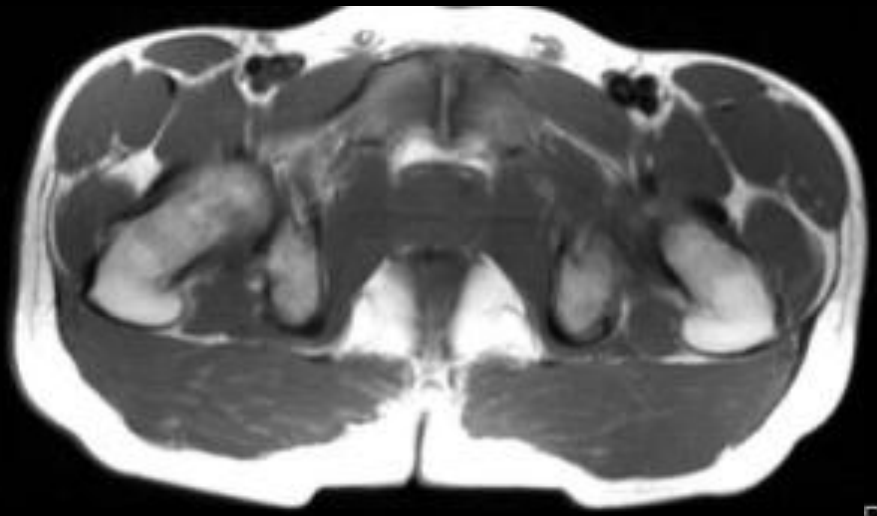
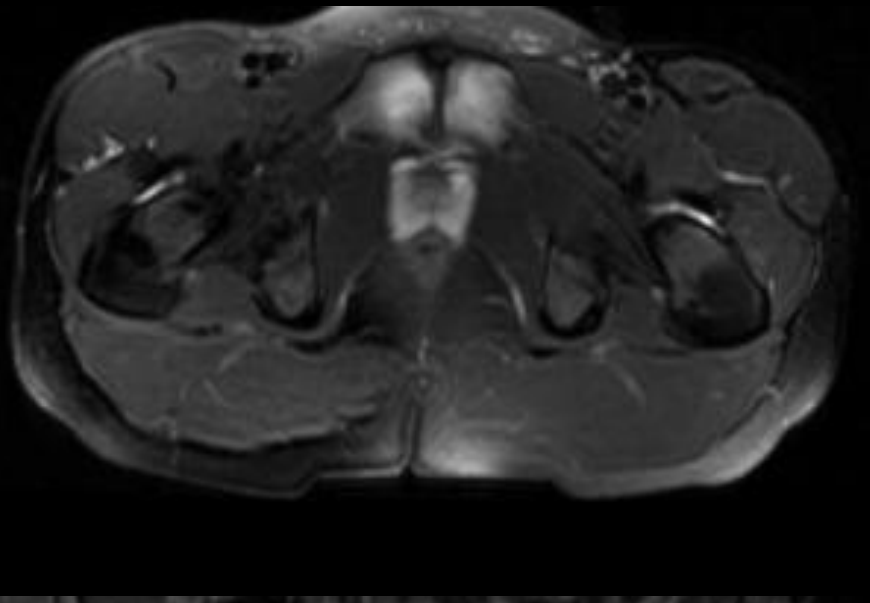
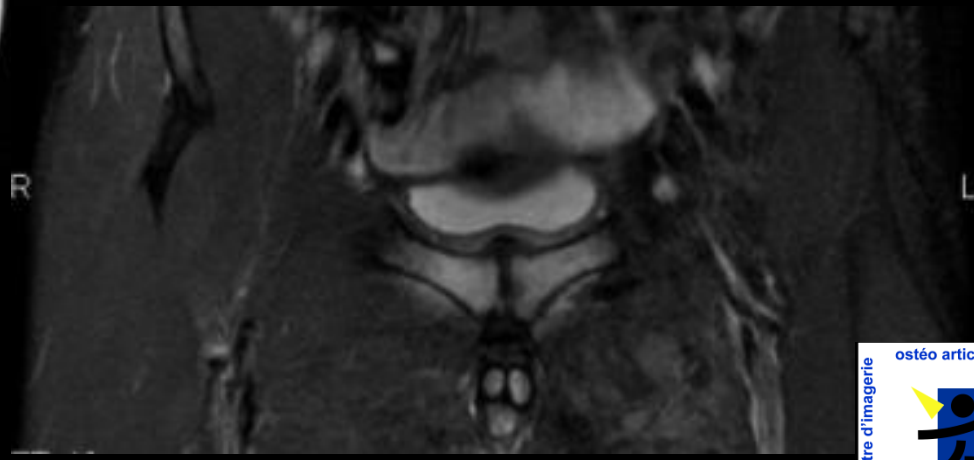
IRM

Ostéo arthropathie pubienne

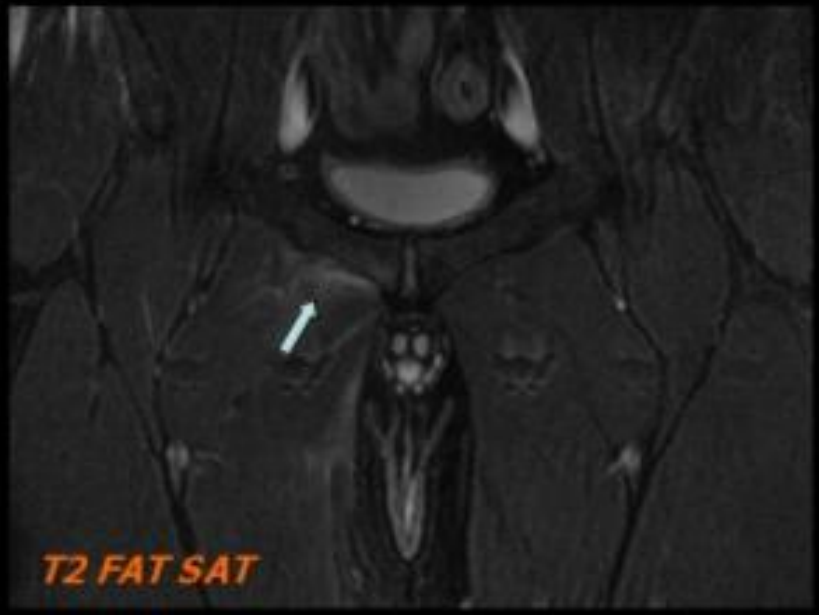






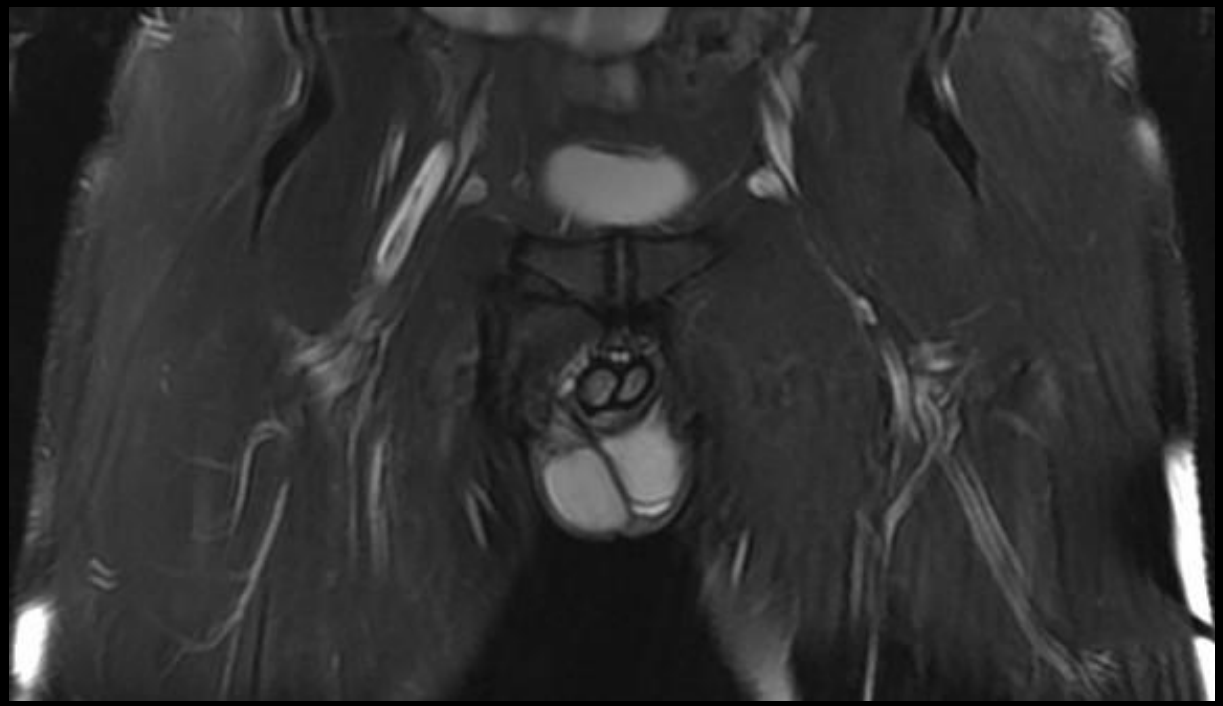
IRM

Lésions musculaires



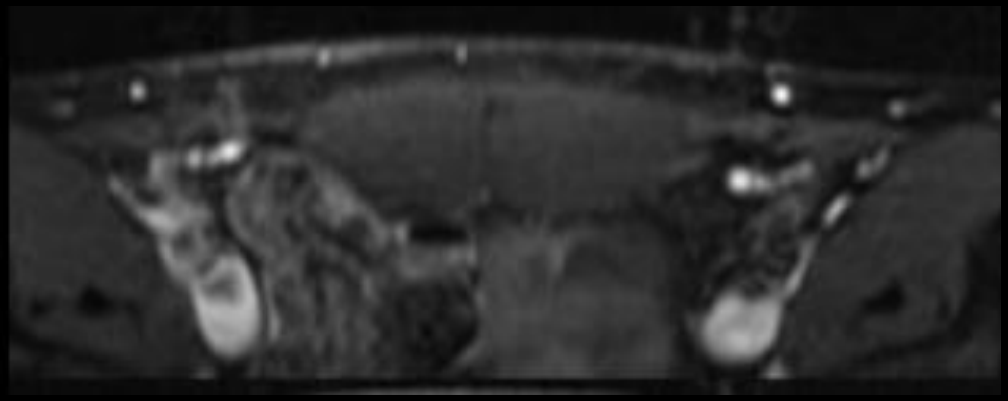
IRM

Lésions musculaires



IRM

Hernie inguinale



IRM

Fracture

Radiologie interventionelle

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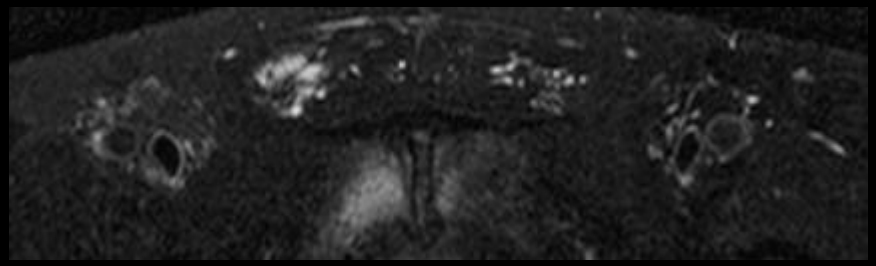
Infiltration radioguidée



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CONCLUSION

Bilan des pubalgies par l'imagerie

1° intention : Radio standard et échographie

2° intention : IRM

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FIN

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