Sports hernia: Diagnosis and treatment

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What is a sports hernia?
- a condition that can successfully be treated by hernioplasty”…. Players with groin pain...
  adductor related, hip flexor related, hip joint related... but some have pain a little more proximal in the groin area and do not respond sufficiently to our “general” groin treatment programs
- Why are they still a major problem?

No consensus on:
- Definition
- Diagnosis
- Etiology
- Treatment

Sports hernia - a description
• A weakness of the posterior wall of the inguinal canal
• Dilation of the transversalis fascia at its weakest point
• The inguinal triangle become wider
• Increased tension on the stabilizing tendons and muscles
• Compression and irritation of the genitofemoral nerve

History
Family history
Previous groin or hip pain
Other longstanding painful conditions
Gastrointestinal problems
Urogenital problems
Weight loss

Sports hernia
Sportsman’s groin
Gilmore’s groin
Hockey groin syndrome
Athletic pubalgia
Incipient hernia

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MRI

Neurology

Test sensibility – to identify the affected dermatome

Nerve entrapment

Palpation of the conjoined tendon and the inguinal canal

Inguinal-related

- Tender conjoint tendon at insertion (sometimes also tender rectus abdominis tendon insertion)
- Tender conjoint tendon when palpating through the scrotum
- Tender external opening of inguinal canal when palpating through the scrotum
- Soft posterior wall/small dilation of the external opening
- Decreased strength of the abdominal muscles especially the oblique plus sometimes pain
Treatment options?

- Pharmacological
- Ultrasound, massage stretching, etc
- Surgery
- Exercises therapy

Exercise program including abdominal exercises and general pelvic strengthening and coordination?

Before surgery, a second thought...

Incidence of groin pain one year after hernia surgery

- Postoperative pain / discomfort: 28.7%
- Pain affecting daily life: 11.0%
- Constant disabling pain: 4.0%

Danish nationwide questionnaire study

Insufficient posterior wall - surgical findings

- Thin external aponeurosis
- Thin and weak fascia transversalis
- Sometimes normal anatomy but hypotrophic muscles

Shouldice plasty

Lichtenstein plasty
A possible evolution of extra-articular groin pain in case of FAI

- Femoro Acetabular Impingement
  - Decreased flexion & internal rotation of the hip joint
  - For the athlete to run/kick/jump - the lack of flexion & internal rotation has to be substituted by compensatory movements
  - The load of the muscles acting across the pelvis will be increased
  - These muscles and tendons are at risk of fatigue and injury

Illustration courtesy of Michael Dienst

What’s new?

Treatment of Athletes With Symptomatic Intra-Articular Hip Pathology and Athletic Pubalgia/Sports Hernia: A Case Series

Christopher M. Larson, M.D., Bradley R. Pease, M.D., and M. Russell Warren, M.D.

Arthroscopy 2011

“"It is important to understand that the hip can be a source of diagnostic confusion, as it is not uncommon for an athlete to have co-existing hip joint pathology and sports hernia/groin disruption.”

“This association may be explained by the increased mechanical loading on the symphysis that results from reduced range of hip motion [22].”

Reference 22:


A possible evolution of extra-articular groin pain in case of FAI (2)

The main structures at risk are:
- the adductor entheses
- the iliofemoral muscle
- the pubic bone and symphysis joint
- the conjoint tendon at the pubic tubercle
- the SI joints and the low back
- the entheses/tendon of the hip abductors
Groin injuries: a Hypothesis

- Imbalance of the pelvis: muscular, ligamentous or otherwise because of strength, previous injury etc. - plus increased activity
- Overuse and consequent weakness of tissue (the posterior wall of the inguinal canal)
- The tissue (the conjoined tendon) is damaged
- Increased stress on the muscles and tendons and pressure on the nerve - pain is generated

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The game of football in particular involve the participant in movements requiring free internal rotation of the hip joint, both in flexion and extension. Where such movement is restricted, stress will be applied across the hip joint to the os inominatum on the appropriate side.

Complaining of inguincrural pain will often require not merely attention to the local lesion but also to hip mobility; patients found to have restricted mobility will need rehabilitation programmes devised to restore mobility to normal. Where such restoration of mobility proves to be impossible, the patient may have to be guided to some other form of sporting activity.

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Thank you