RAPID RESEARCH

@physicaltherapyresearch

October 2023

Inside This Week:

Detecting Inguinal Hernias

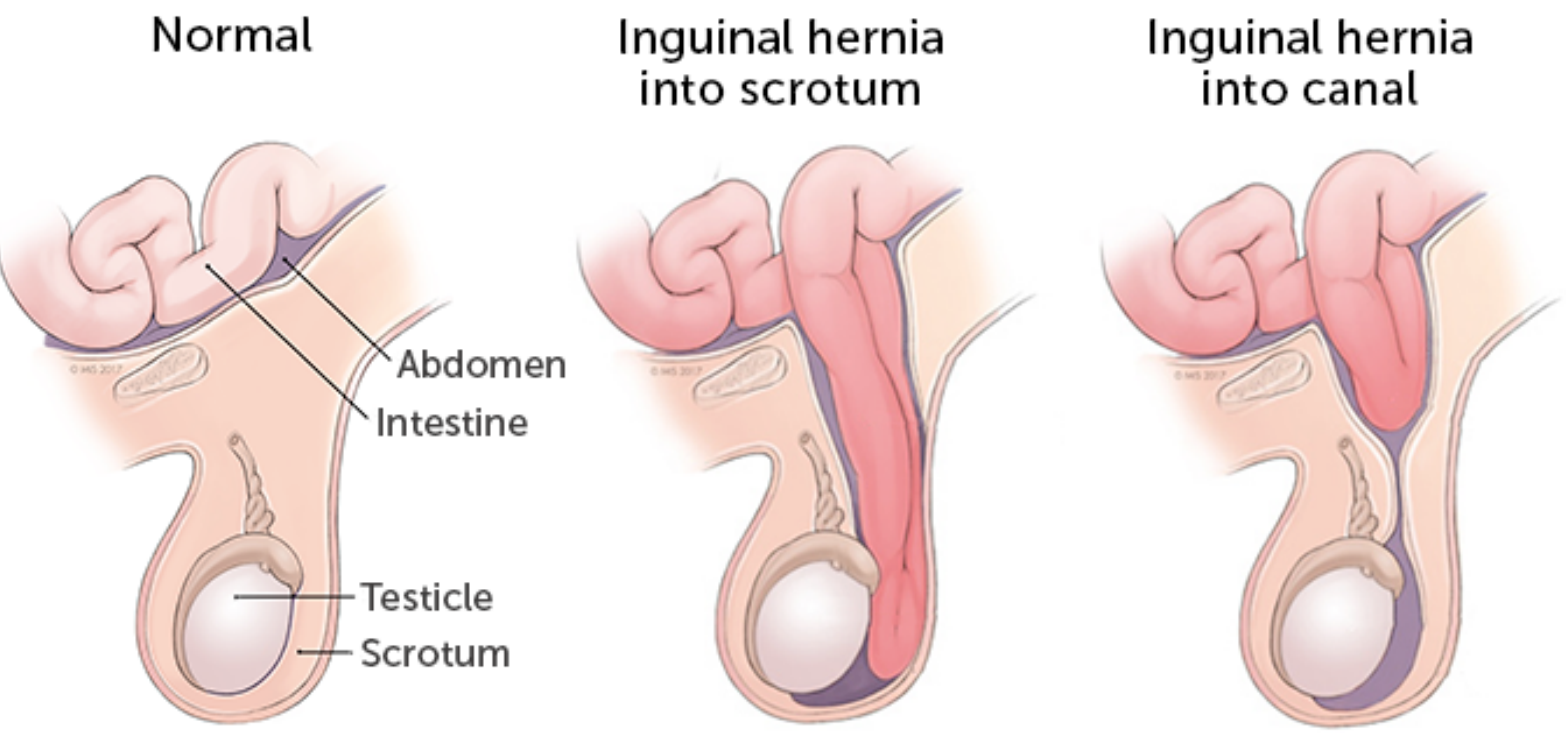
- Accuracy of Ultrasound to Diagnose Inguinal Hernia
- Dynamic MRI to Exclude Inguinal Hernia
- Dynamic US for Athletes with Inguinal Hernia

ACCURACY OF ULTRASOUND TO DIAGNOSE INGUINAL HERNIA

OCTOBER 2023

Click for Full Text (Duarte et al. 2019)

This study evaluated the accuracy of ultrasonography in the diagnosis of inguinal hernia in the preoperative period of patients submitted to inguinal herniorrhaphy



KEY FINDINGS

232 patients included;
Compared Ultrasonography vs. Exam vs. Intra-operative findings.

Results:

Agreement between:

Ultrasonography findings with inguinal hernia complaint in 52% of patients.

Disagreement between:

% of patients with hernia at exam not confirmed by US (28.57%) and the percentage of hernias identified only by the complementary examination (8.93%).

Ultrasound vs. Intra-operative Findings:

32.70% of patients presenting with hernia had normal ultrasonography.

MAIN TAKEAWAYS

Moderate-quality evidence demostrates ultrasound was an unreliable method to help diagnosis inguinal hernia.

Ultrasound was dispensable when the diagnosis was confirmed by typical complaints and compatible physical examination.

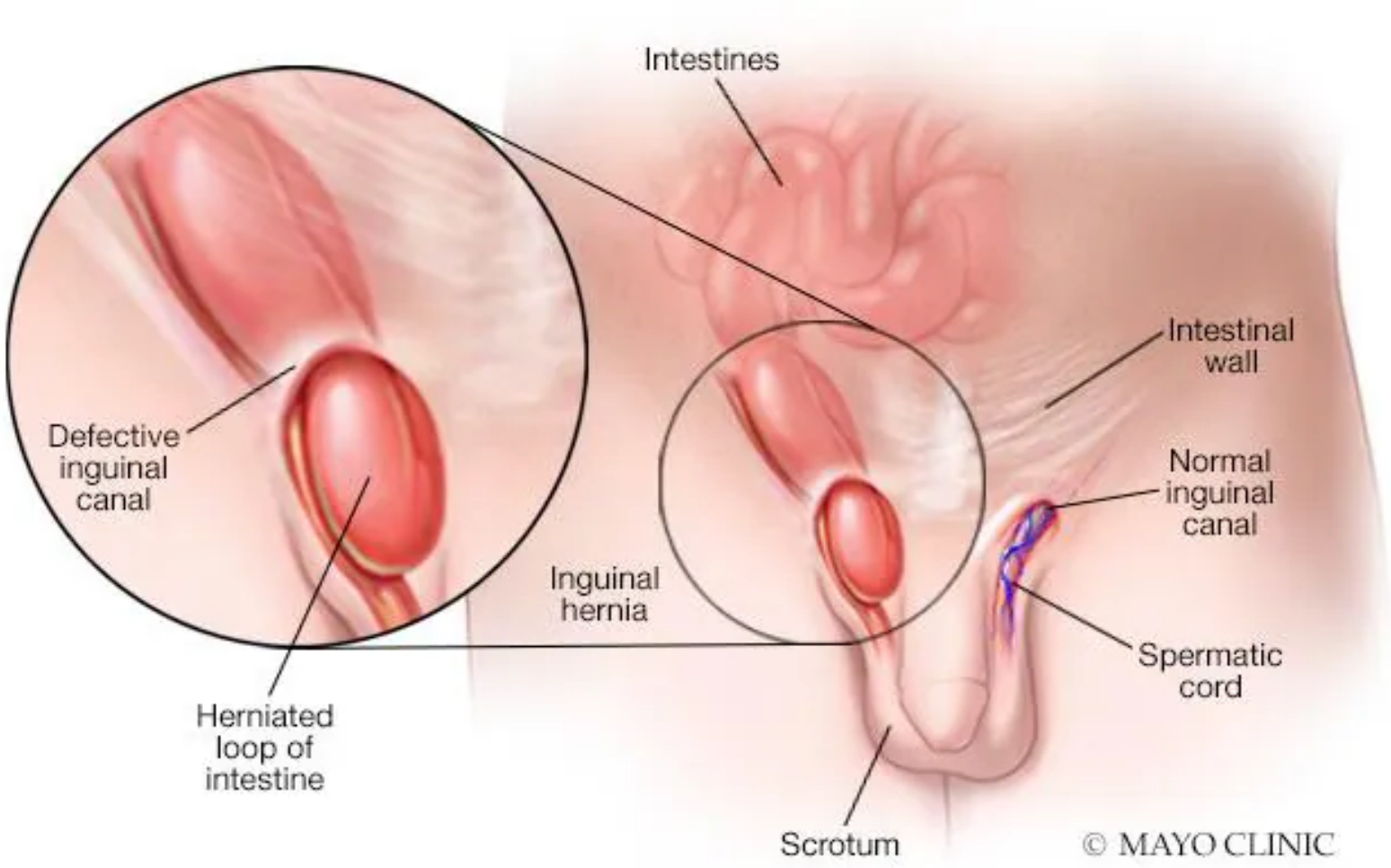
The data showed that patients with typical complaints and physical examination compatible with inguinal hernia did not present conduct changes after the US.

DYNAMIC MRI TO EXCLUDE INGUINAL HERNIA

OCTOBER 2023

Click for Full Text (Rosbach et al. 2023)

This study analyzed the role of dynamic magnetic resonance imaging (MRI) in patients who suffered from groin pain and whose physical examination and ultrasound returned inconclusive/indefinite results.



KEY FINDINGS

25 participants with groin pain; US vs Dynamic MRI results.
Physical examination found no inguinal hernia in any patient.

Findings:

Dynamic MRI:
Negative for 23 patients (92%)
Positive for 2 patients (8%).
- One patient suffered from an indirect hernia and one from a femoral hernia.

Ultrasound:
Negative for 6 patients (24%)
Inconclusive in 4 patients (16%)

A repeated hernia was excluding for the pre-operated patients with pain and ongoing assessment.

MAIN TAKEAWAYS

Inguinal hernia repair plays an important role in clinical routine.

To avoid intervention related side effects, the diagnosis of an inguinal hernia must be accurate.

In some patients, however, an ultrasound and a physical examination do not provide an accurate diagnosis.

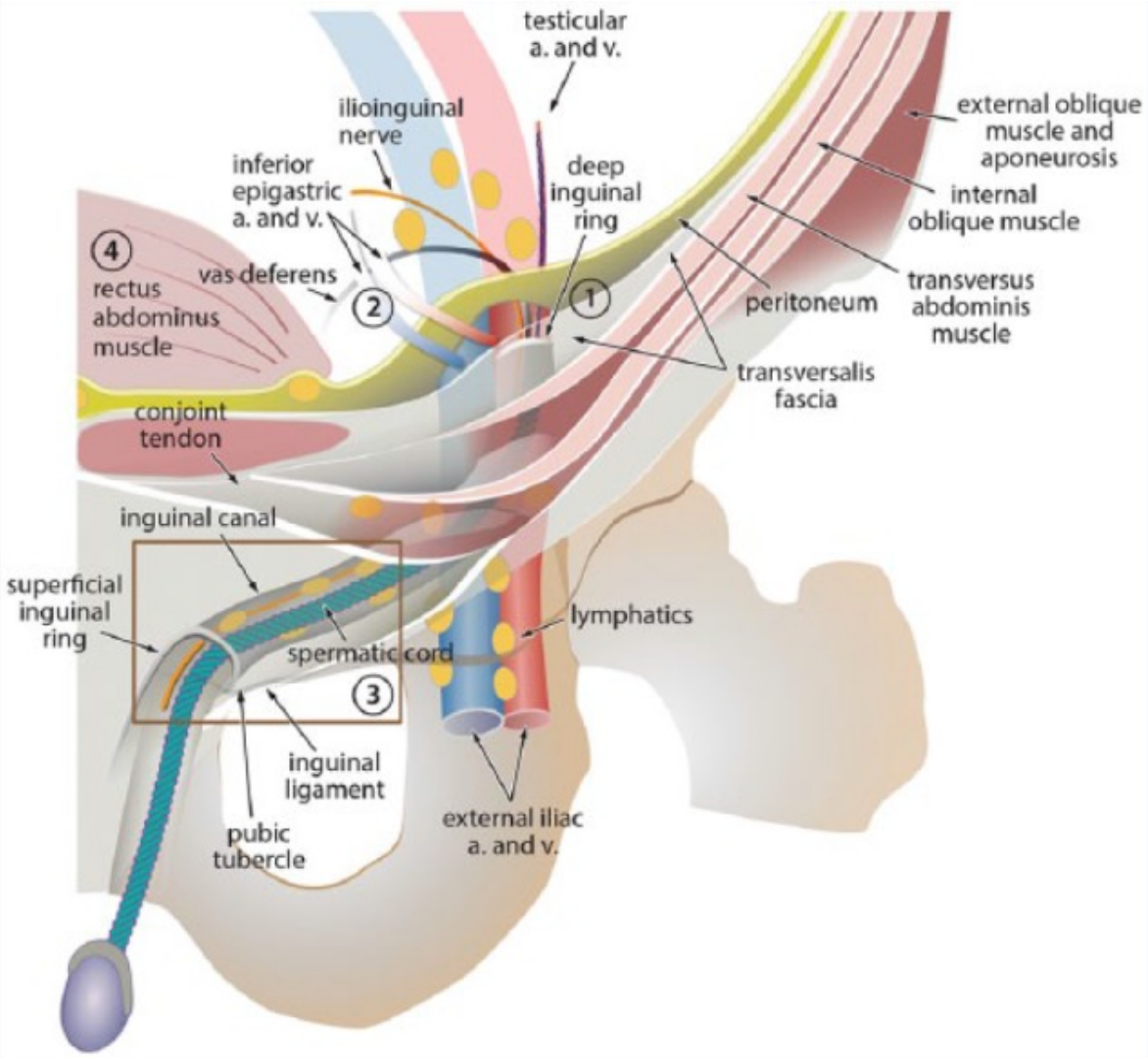
In these situations, dynamic MRI can play an important supportive role in the exclusion of inguinal hernias and therefore in minimizing the number of unnecessary operations.

DYNAMIC US FOR ATHLETES WITH INGUINAL HERNIA

OCTOBER 2023

Click for Full Text (Vasileff et al. 2017)

This study evaluated the effectiveness of different types of surgery compared with different types of non-surgical interventions in adults with symptomatic Lumbar Spinal Stenosis (LSS).



KEY FINDINGS

47 athletes with groin pain vs 41 asymptomatic athletes.

Findings:

US positive for hernia with movement of bowel, bladder, or omental tissue anterior to the inferior epigastric vessels during Valsalva maneuver.

Direct inguinal hernias [41], Indirect inguinal hernia [1]

Of 42 hernias, 39 significantly improved with herniorrhaphy.
2 failed & were diagnosed with Adductor longus tears
1improved with physical therapy only.

5 with negative US had MRIs and had hip labral tear or osteitis pubis.

41asymptomatic group had 3 direct inguinal hernias, 2 with indirect inguinal hernias, and 3 with femoral hernias.

MAIN TAKEAWAYS

Inguinal hernias are a major component of groin pain in athletes.

Prevalence of direct inguinal hernia in symptomatic athletes was greater than that for controls.

Surgery was successful in returning these athletes to sport: 39 of 42 (93%) athletes with groin pain and inguinal hernia became asymptomatic.

Persistent groin pain in the athlete may relate to inguinal hernia, which can be diagnosed with dynamic ultrasound imaging.

GIVE US YOUR FEEDBACK!

MEMBERS

We are on a mission to make research more accessible, easier to interpret, and quicker to implement.

Help us by giving 1 minute of your time to leave feedback for us.

We would greatly appreciate any feedback you have, as it helps us continually improve!

Leave Review