



GUARNIERI
HERNIA
CENTER

The Italian Center of Excellence for Hernia Surgery

**A NEW VARIANT OF THE
GUARNIERI'S TECHNIQUE FOR
INGUINAL HERNIA REPAIR**

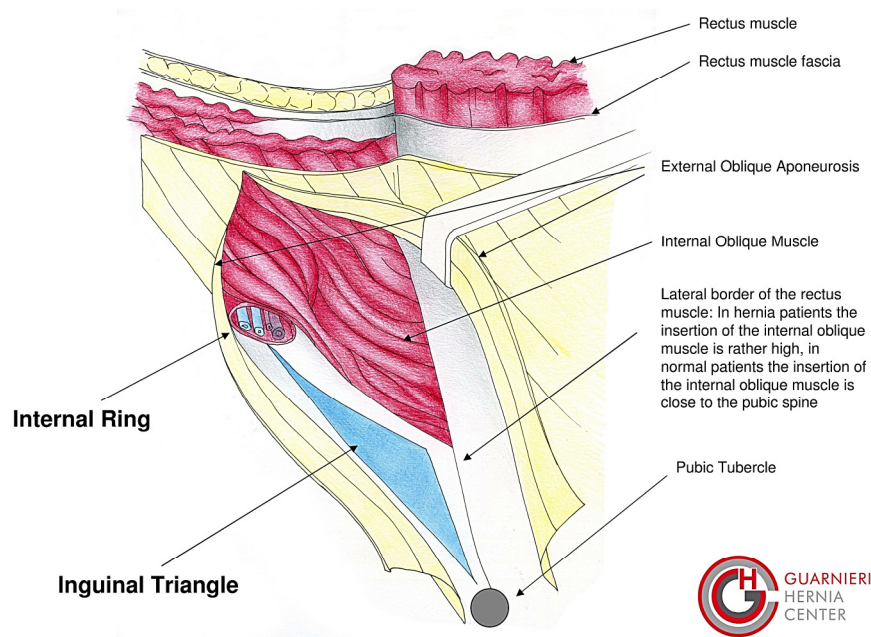
Presented by Francesco Guarnieri

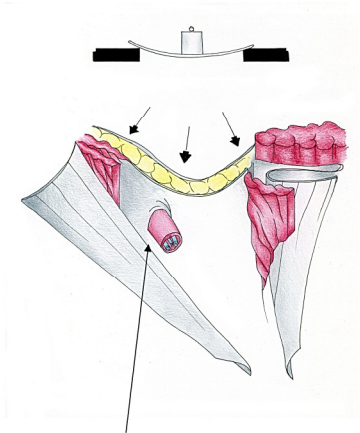
May 2010

www.guarnieriherniacenter.com

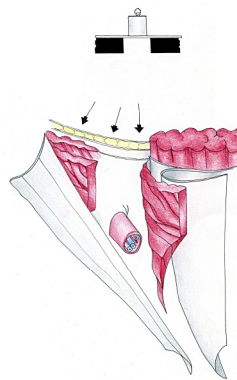
Guarnieri.hernia.center@gmail.com

Right Inguinal Canal



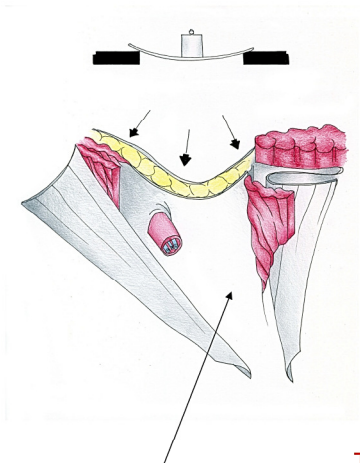


The internal ring is involved in External Oblique Hernia

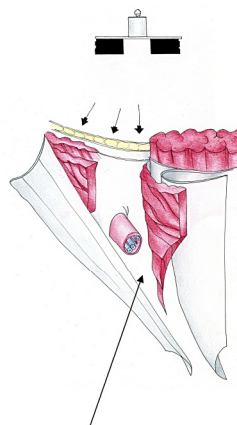


The internal ring must be:

- Calibrated
- Reinforced



The inguinal triangle is involved in Direct hernia

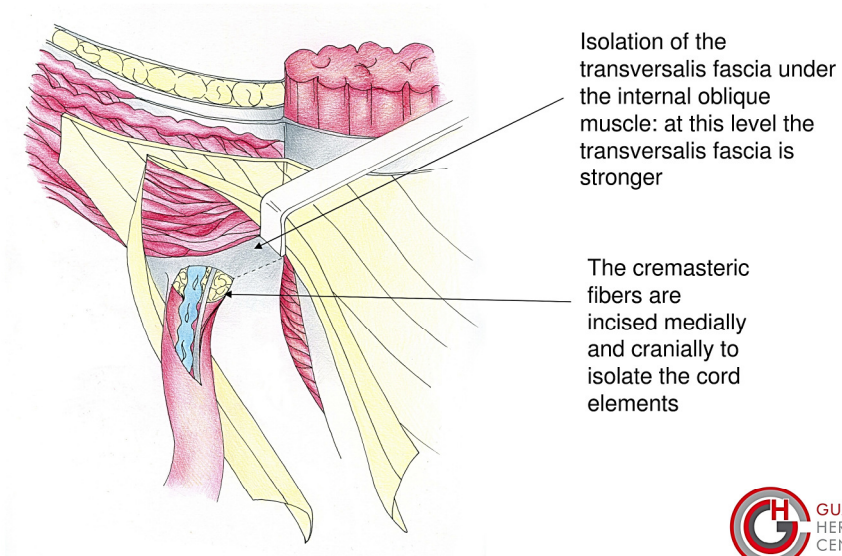


The inguinal triangle must be:

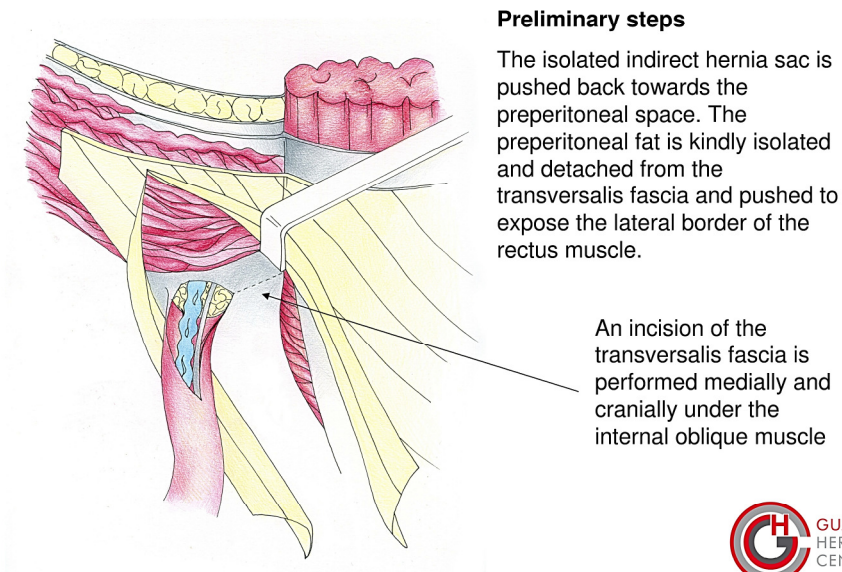
- Reduced
- Reinforced



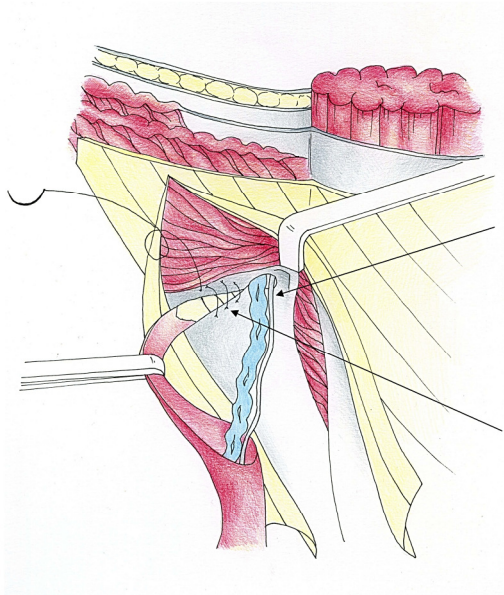
Treatment of the internal ring (indirect hernia)



Treatment of the internal ring (indirect hernia)



Treatment of the internal ring (indirect hernia)

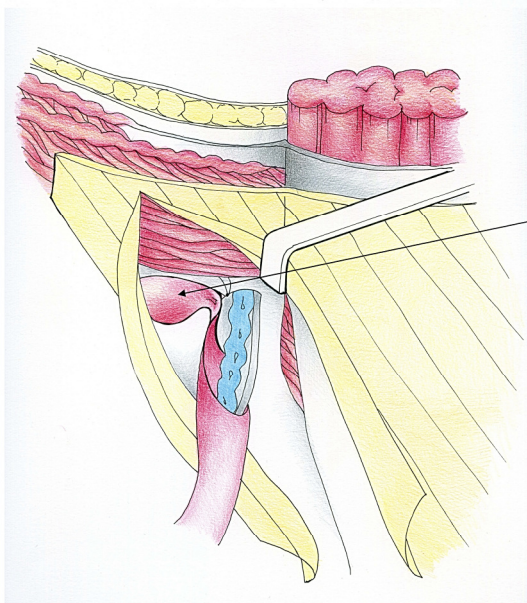


The cord elements are brought to the medial angle of the incision and are then transposed medially and cranially under the internal oblique muscle.

The original internal ring, surrounded by weak tissue, is closed with a running suture.



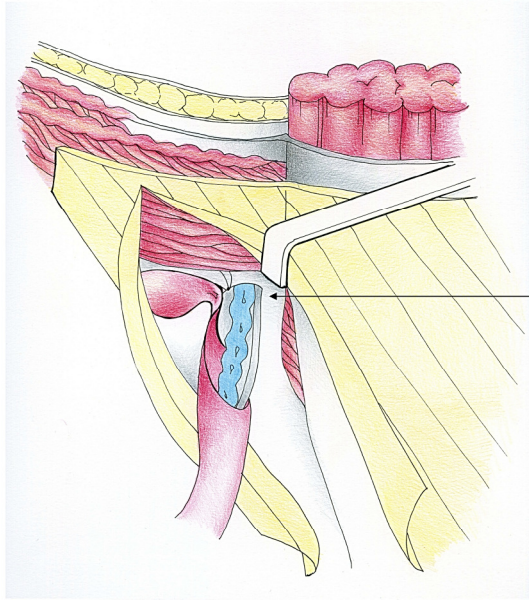
Treatment of the internal ring (indirect hernia)



Keeping the previous running suture the cremaster is overlapped to reinforce and completely close the old internal ring



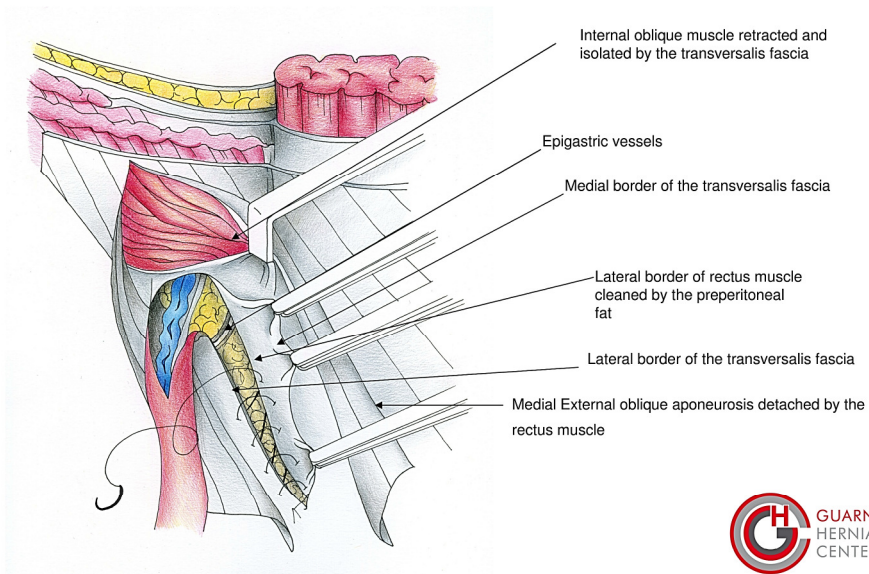
Treatment of the internal ring (indirect hernia)



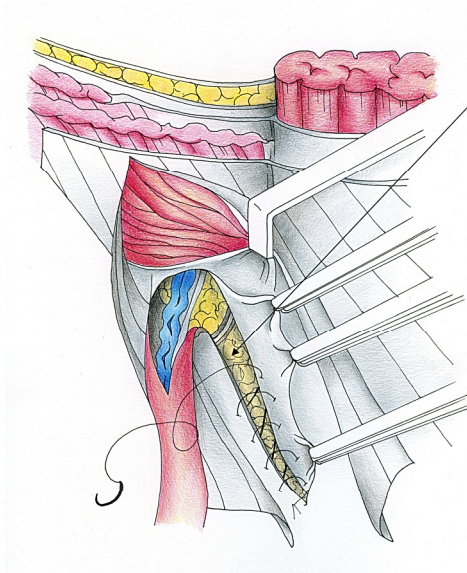
The internal ring is now calibrated, reinforced and placed in a stronger area of the transversalis fascia under the internal oblique muscle



Treatment of the inguinal triangle (direct hernia)



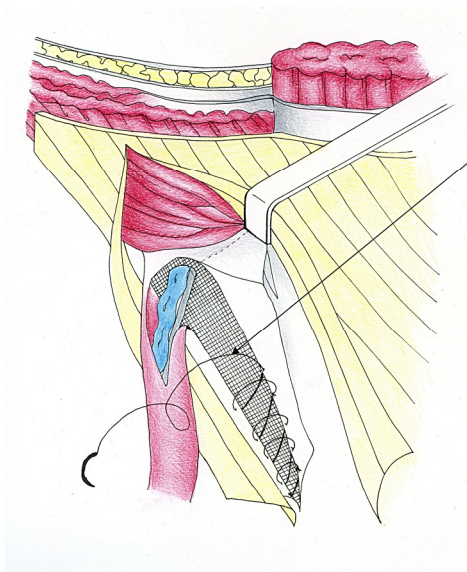
Treatment of the inguinal triangle (direct hernia)



An incision of the transversalis fascia is performed from the internal ring toward the pubic tubercle. The preperitoneal fat is kindly pushed and detached from the lateral border of the rectus muscle and isolated from the transversalis fascia



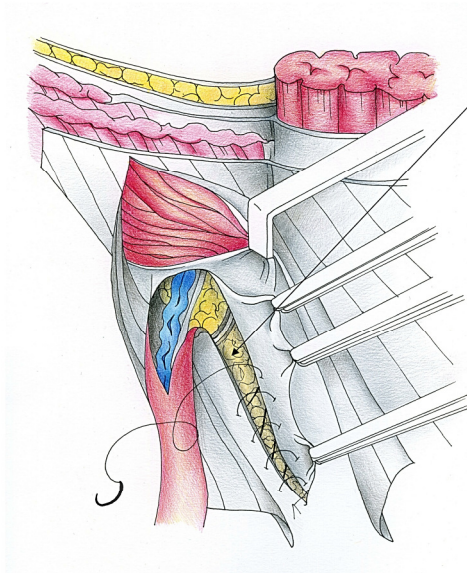
Treatment of the inguinal triangle (direct hernia)



It is possible to place a fenestrated mesh over the preperitoneal fat before starting the running suture of the transversalis fascia.



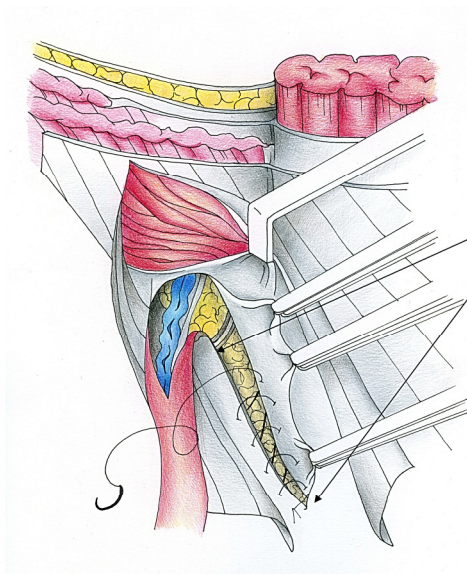
Treatment of the inguinal triangle (direct hernia)



The running suture joins the lateral flap of the transversalis fascia with the lateral border of the rectus muscle fascia



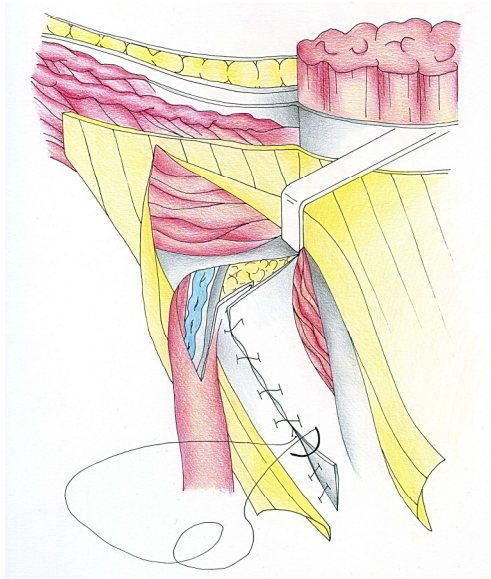
Treatment of the inguinal triangle (direct hernia)



The running suture starts at the level of the pubic tubercle to reach the epigastric vessels.
The internal ring for now remains untreated



Treatment of the inguinal triangle (direct hernia)



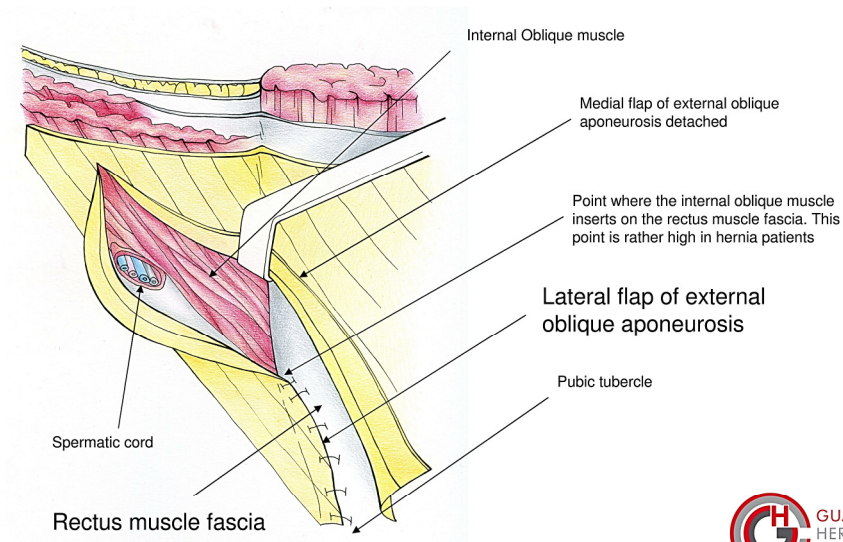
On the way back, the running suture joins the medial flap of transversalis fascia over the lateral one. We do not take the inguinal ligament in the suture.

The transversalis fascia is now double breasted

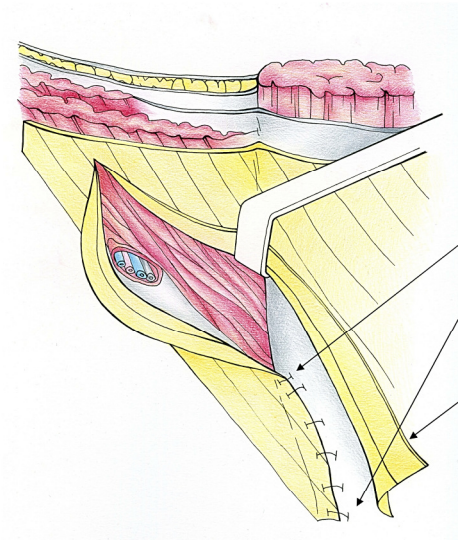
Now it is possible to treat the internal ring as previously described



Treatment of the superficial layer



Treatment of the superficial layer

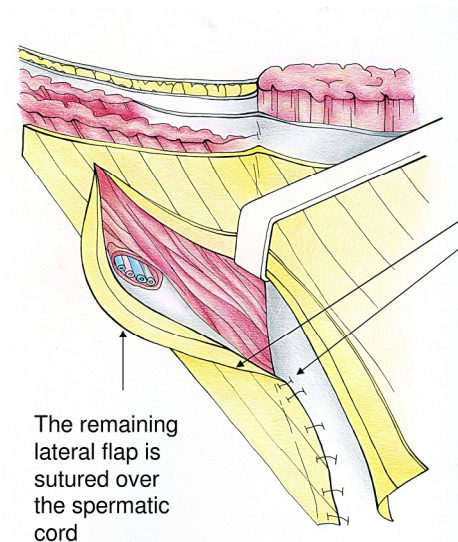


A running suture joins the lateral flap of the external oblique aponeurosis with the rectus muscle fascia. The suture starts from the point of inferior insertion of the internal oblique muscle toward the pubis.

Medial flap of external oblique aponeurosis well detached and isolated from the rectus muscle



Treatment of the superficial layer

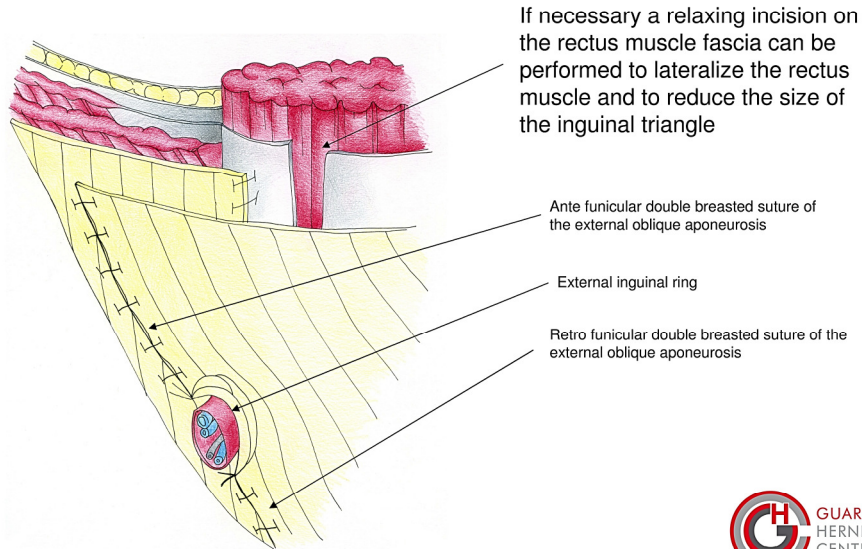


The spermatic cord exits from here, a new external ring is performed

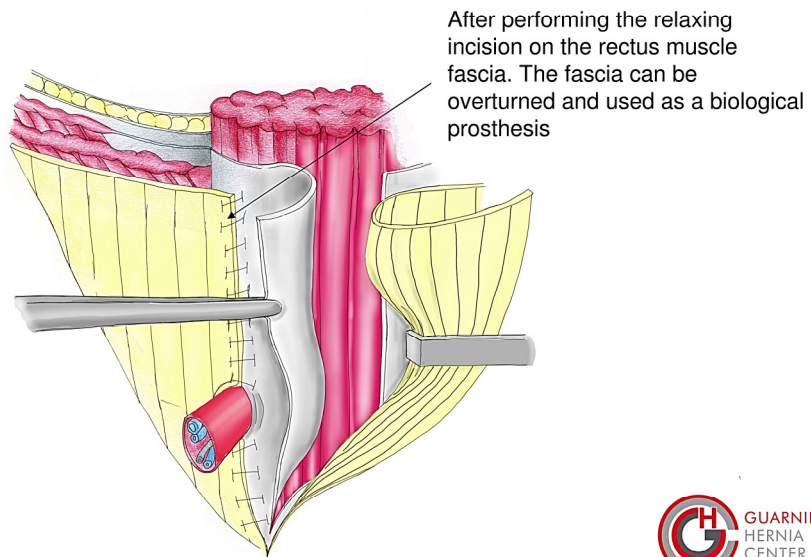
The remaining lateral flap is sutured over the spermatic cord



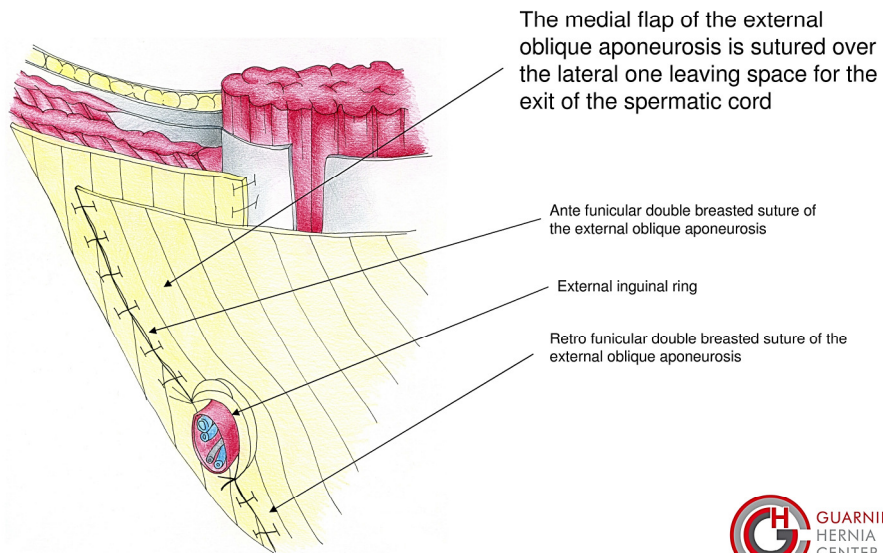
Treatment of the superficial layer



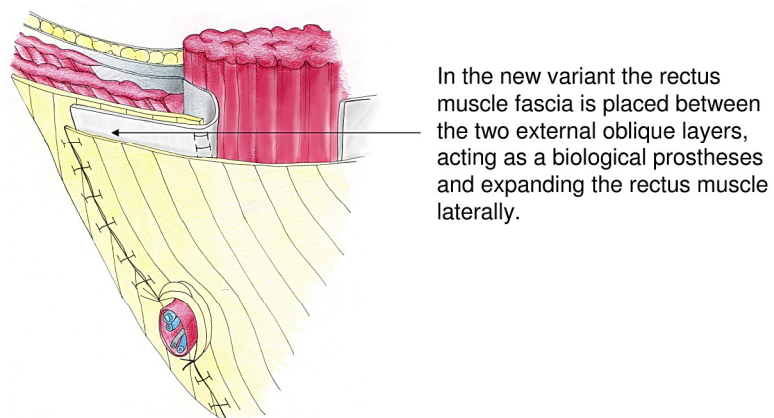
Treatment of the superficial layer: The new variant



Treatment of the superficial layer

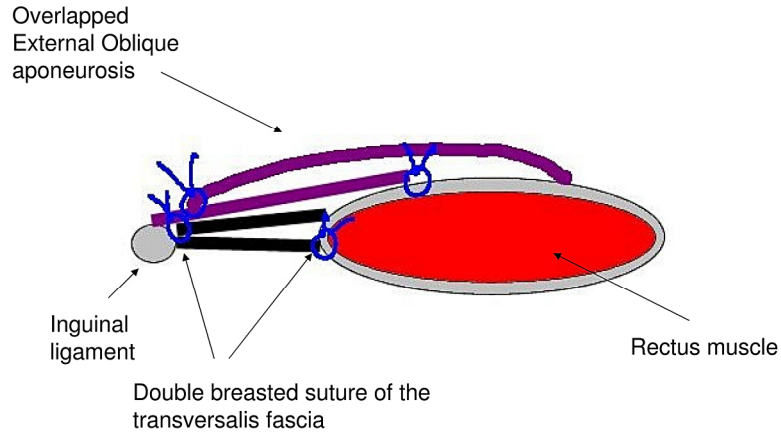


Treatment of the superficial layer: The new variant



The new variant

This is a section of the Guarnieri's classic technique

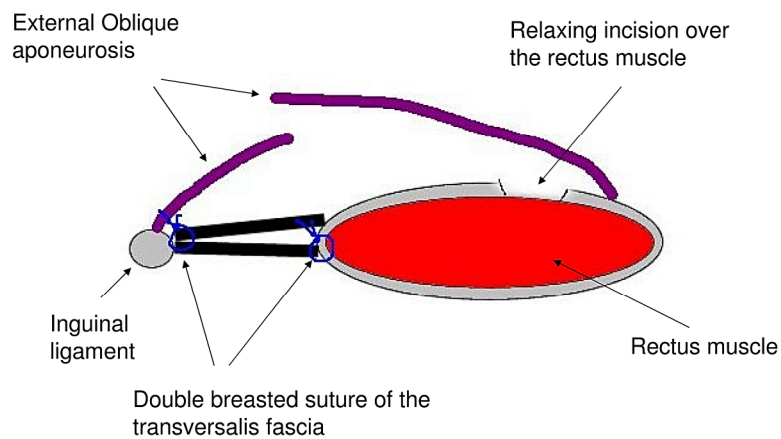


Guarnieri's classic technique



The new variant

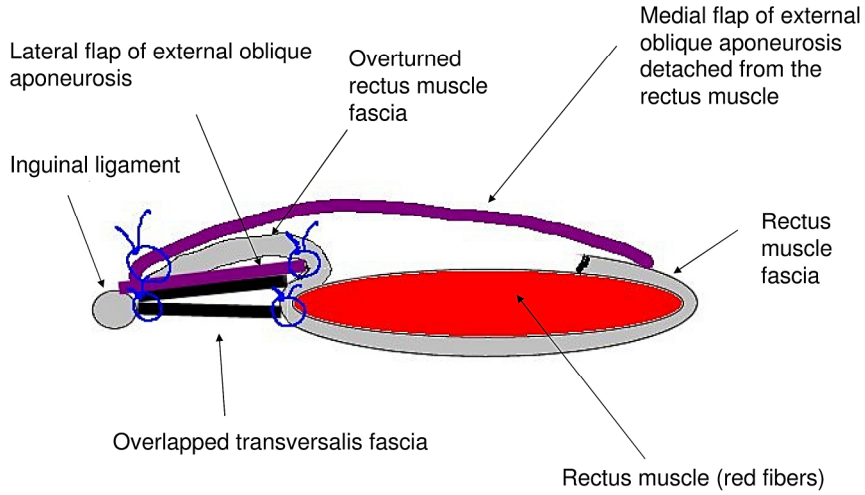
The relaxing incision of the rectus muscle fascia expands the rectus muscle towards the inguinal ligament reducing suture tension and reducing the passive area (the area without musculature of the inguinal triangle).



Guarnieri's classic technique: section of the deep floor treatment



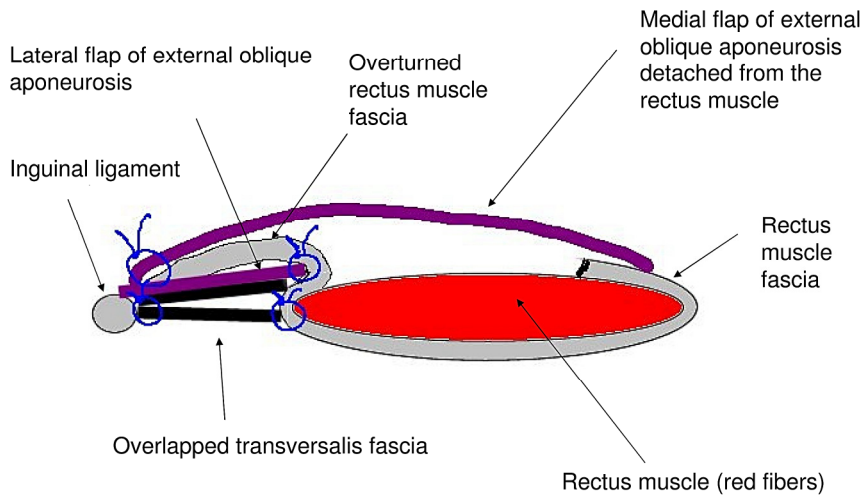
The new variant: reinforcement of the inguinal triangle



The Guarnieri's new technical variant: the incised rectus muscle fascia is overturned over the lateral external oblique aponeurosis



The new variant: reinforcement of the inguinal triangle



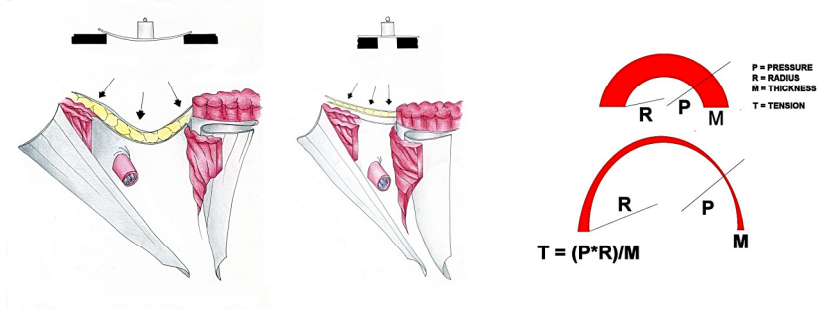
The Guarnieri's new technical variant expands the rectus muscle, reinforce the inguinal triangle, reduce suture tension, reduce the extension of the inguinal triangle



The new variant

Why use this technical variant:

according to the Lapace law of physics we have to reduce and reinforce the inguinal triangle. With this new variant we do not use any mesh for treating inguinal primary hernia. We have now a recurrence rate of 0.5 %.



Francesco Guarnieri 2010

