According to our point of view, we think that the deep inguinal triangle is a passive area that predisposes to hernia. The sac, beyond the neck, is isolated. It can be either resected or simply pushed in the preperitoneum. For these reasons the tension free techniques are not without tension. This suture level, as the Guarnieri technique, is innovative compared to more classical anatomical techniques. Two are the critical points that involve an hernia operation: 427 were recurrent hernias always treated with mesh, with a recurrence rate of 3.3 %; 1451 were primary with a recurrence rate of 0.6 %. There were very few recurrences in patients treated for primary hernia with mesh. Recurrence rate is 0.7 % in patients treated without mesh. Postoperative complications and postoperative pain are listed.

The Guarnieri’s technique

Deep layer: Indirect hernia with a medium-small defect.

An incision on the funiculus involving the proximal tract of the internal spermatic fascia as far as the deep ring, is performed. The sac, beyond the neck, is isolated. It can be either resected or simply pushed in the preperitoneum. I prefer the second choice, unless the sac is very long and adherent. In this case, I divide it leaving the fundus in situ. The elements of the funiculus (vesseals and deferent) are separated from the proximal tract of the internal spermatic fascia and cremaster and then isolated. The isolation is extended to the level of the deep ring and, for a few centimeters, in the preperitoneal area. A two-centimeter incision is performed on the transversus fascia and apponeurosis of the transversus, starting on the deep ring, in a medial and cranial direction (Fig. 1). The elements of the funiculus are brought to the medial angle of this incision (Fig. 2); then, the first layer of suture is started. With the first passage of the thread, a new easily calibrated deep ring is created (Fig. 1). The incision is then sutured until the original ring is completely closed (Fig. 2). Keeping the same suture, a second layer is created, but in the opposite direction, to cover the first layer with the cremaster and internal spermatic fascia (Fig. 3).

Deep layer: Direct hernia or indirect hernia with a large defect.

Transformation of the large defect into a small-defect indirect one. The surgery is then completed following the repair technique for a small-defect indirect hernia. Having isolated the funiculus and retracted the internal oblique muscle all the rest of the operation will follow a precise pattern depending on the nature of the hernia.

In indirect hernia, a medial incision is performed, which involves the proximal tract of the internal spermatic fascia and the deep ring. A second incision on the transversalis fascia of the deep ring up to the pubic spine is performed. In direct hernia, the transversalis fascia above the hernial sac is resected. Then, an incision on the fascia transversalis is extended cranially, up to the deep ring. The preperitoneum is detached from the transversalis fascia medially to the hernial defect, beyond the lateral margin of the rectus sheath.

The Guarnieri operation: 427 were recurrent hernias always treated with mesh, with a recurrence rate of 3.3 %; 1451 were primary with a recurrence rate of 0.6 %. There were very few recurrences in patients treated for primary hernia with mesh. Recurrence rate is 0.7 % in patients treated without mesh. Postoperative complications and postoperative pain are listed.

The repair of the superficial layer is the same as in all hernias. The external side of the inferior-lateral border of the external oblique aponeurosis is freed completely from every adhesion. The point at which the inferior part of the internal oblique muscle reaches the rectus sheath is found. At this level a new superficial ring is created; the suture is performed between the margin of the internal oblique muscle and the external aponeurosis of the rectus sheath, along a fine parallel and 1 cm medially from the lateral margin of the rectus muscle. The suture runs up to the pubis (Fig. 7), while the funiculus is kept lateral to the operation field. Therefore, the suture is behind the funiculus. Usually, we use continuous suture in both directions, so that it is easier to fix the thread. The funiculus is placed in its place, leaving completely on the internal oblique muscle. Enough space is left for the exit of the funiculus (Fig. 8), and a second suture between the rectus muscle sheath and the lateral margin of the external oblique aponeurosis, along the previous line, is performed. The third suture layer is, therefore, completed. The fourth layer is characterized by the suture which involves the superior-medial flap of the external oblique aponeurosis and the external side of the inferior lateral aponeurotic flap, so that there is wide overlapping without much tension. This suture level, as the previous one, is wide-funicular and proceeds from the neo-superficial ring to the cranial extreme of the incision and retro-funicular from the superficial neo-open to the pubis (Fig. 9).

Conclusions

The Guarnieri’s technique is innovative compared to more classical anatomical techniques. Although providing for the use of prostheses as the most modern techniques, such use is reduced.

ABSTRACT: The quality of an hernia operation can be summarized with the word SETUP (Surgical Experience – Technique Used – Patient). Recurrence is no more a problem because of the mesh. Meshes can lead to more complications so the experienced surgeon avoids the mesh and likes to perform a pure tissue repair. The Guarnieri’s technique can be performed either with or without mesh. Its main characteristic is to modify the anatomy of the pathological inguinal canal (hernias) and preserve the physiology. The mesh is now used in only 15 % of patients with primary hernia. The main characteristic of this technique is here discussed, demonstrating indications, surgical experience and anatomical variations. We think that the inguinal triangle is a passive area that predisposes to hernia formation. We believe that this area of the inguinal canal is most stressed by the abdominal pressure following the Laplace law of physics.

To From December 1988 to September 2009 we have performed 5239 inguinal hernia operations. 427 were recurrent hernias always treated with mesh, with a recurrence rate of 3.3 %; 1451 were primary with a recurrence rate of 0.6 %. There were very few recurrences in patients treated for primary hernia with mesh. Recurrence rate is 0.7 % in patients treated without mesh. Postoperative complications and postoperative pain are listed. We recommend this operation to the trained surgeon.

Two are the critical points that involve an hernia operation:

- The inguinal Ring (involves the external oblique hernias)
- The inguinal Triangle (involves the direct hernias)

The Laplace law

\[ T = (P)^2 / M \]

The Laplace law is applied to the hernia sac in the inguinal region.