

CASE REPORT: LAPAROSCOPIC TREATMENT OF INGUINAL AND IPSILATERAL SPIEGEL'S HERNIA

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Abstract: Laparoscopic repair of abdominal wall hernias is increasingly used and widespread among surgeons, as it has shown advantages when compared to open repairs. Higher direct costs and the mandatory use of general anesthesia are arguments against its use, on the other hand, potential benefits aimed at improving quality of life include reduction in postoperative pain, quick recovery, lower recurrence rate, fewer complications and less overall cost, have already been proven. Although it was described about 30 years ago, the approach took a while to spread, possibly due to the anatomy that was still little explored, in addition to requiring advanced laparoscopic skills. The article in question reports the case of a patient with a direct inguinal hernia concomitant with the ipsilateral Spiegelian hernia, who received simultaneous repair of the two defects, via laparoscopy.

INTRODUCTION

Abdominal hernias can be defined as an abnormal protrusion of an organ or tissue resulting from a deformity in the wall of the cavity that contains it (1). Inguinal hernias result from points of least resistance in the musculoaponeurotic layer, which is contained in the myopectineal ring. Lifetime prevalence is estimated at 27 to 43 percent in men and 3 to 6 percent in women (2). Currently, surgical treatment is recommended only in symptomatic cases, contrasting with the old aphorism that “diagnosed hernia is equal to operated hernia” (3). In this context, surgical correction of inguinal hernias is the most commonly performed surgical procedure worldwide. (4)

Spiegel’s hernia is a rare type of ventral hernia, mainly acquired, which is located laterally to the rectus abdominis muscle and medially to the semilunar line (5). It presents diagnostic difficulties due to its low incidence, corresponding to 2% of abdominal

wall hernias, anatomical location under intact external oblique aponeurosis covering the hernial sac, and inconsistent clinical presentation. Many patients will never have symptoms that lead to the diagnosis (5, 6). It usually mainly affects the adult population, with an average age of 65 years and women with a 2:1 ratio. (8, 7) It presents a high risk of entrapment, the highest among ventral hernias, reaching approximately 17 to 24%, in addition to the risk of strangulation. On the other hand, the risk of incarceration of inguinal hernias varies between 0.27 and 2.5% depending on the follow-up time. (5)

Several approaches have been proposed over time for the treatment of inguinal hernias. However, only three surgical techniques are currently validated. The Lichtenstein technique and the laparoscopic techniques: preperitoneal transabdominal hernioplasty (TAPP) and totally extraperitoneal endoscopic hernioplasty (TEP) (4). It is noteworthy that the International Guideline of the European Society of Hernias indicates laparoscopy in case of recurrence after previous open repair (8, 9). On the other hand, regarding the recurrence of the laparoscopic repair, the Lichtenstein technique is indicated (10). For the approach of Spiegel’s hernia, one can also opt for the conventional or laparoscopic approach. Both approaches are validated by current guidelines, with minimally invasive surgery highlighted by fewer postoperative complications and shorter hospital stay. The overall recurrence rate is very low (5).

CASE REPORT

Patient M.C.B., male, 79 years old, with recurrent inguinal hernia on the right, associated with ipsilateral primary Spiegel hernia. Previously with systemic arterial hypertension, dyslipidemia, coronary artery disease, type 2 diabetes mellitus, hypothyroidism, peripheral arterial disease.

The first inguinal hernioplasty was performed anteriorly (open) at the beginning of his adult life, with direct recurrence, associated with pain during walking. He also underwent another operation, femoro-femoral by-pass due to his chronic vasculopathy.

After preoperative preparation, under general anesthesia, videolaparoscopy was performed, in which the hernias were identified, as shown in image 1. It was an inguinal hernia medial to the inferior epigastric vessels (direct), classified as RM2, according to the classification of European Society of Hernias (EHS), in addition to primary Spiegelian hernia, located laterally to the right rectus abdominis muscle, with a neck of approximately 2 centimeters.

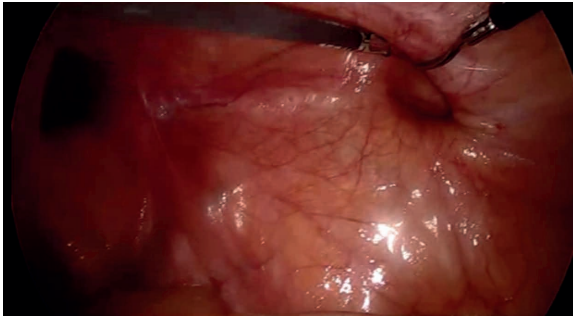


Image 1: Hernias documented during videolaparoscopy

Dieresis of the parietal peritoneum cranial to Spiegel's hernia was performed, followed by parietalization of the pre-peritoneal structures and extensive dissection of the anatomical spaces of Retzius and Bogros.



Image 2: Wide dissection of the preperitoneal space, with parietalization of the anatomical structures and individualization of the parietal peritoneum, located inferiorly.

After the dissection and review of hemostasis, a high-weight polypropylene mesh was positioned in the dissected space, covering both defects and overlapping by 5 cm in all directions. It was decided to fix the mesh to the abdominal wall using absorbable staples.

Finally, the synthesis of the peritoneum was performed by means of continuous laparoscopic suture, covering the entire mesh with the peritoneal flap.

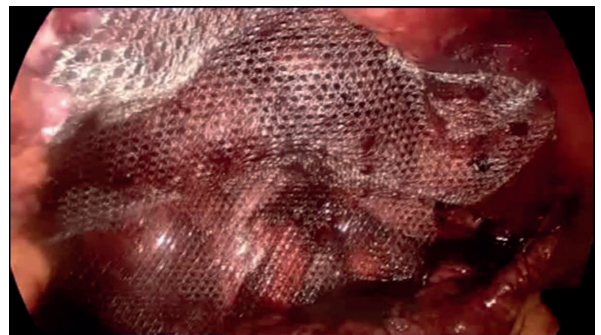


Image 3: Single large polypropylene mesh, heavyweight, covering both defects with an overlap of 5 cm in all directions, fixed with absorbable staples

The operation lasted 90 minutes, without surgical or anesthesiological intercurrents. The patient was referred to the inpatient unit in a stable condition, where he remained until he was discharged 24 hours after the procedure.

The patient presented parietal pain as the only postoperative complaint, well controlled with simple oral analgesia, necessary during the first week. Clinical follow-up was carried out until completing 6 months postoperatively, with the patient being asymptomatic, with no signs of hernia recurrence.

DISCUSSION

Preperitoneal transabdominal laparoscopic herniorrhaphy must be the first choice in cases of bilaterality, associated umbilical hernia, obesity and recurrence of anterior repair (7). Even at the beginning of the learning curve, the risk is adequate for the procedure (10).

Recurrence rates after a primary hernia repair range from 0.5% to 15%, depending on factors including the site and type of hernia (direct, indirect, femoral), type of repair (with or without tension, open, laparoscopic, robotic) and clinical circumstances (elective, emergency) (11, 12).

In general, both open and laparoscopic treatment of inguinal and Spiegelian hernias can be safely performed, depending on the surgeon's experience (11). The fact of recurrence (5, 8, 9, 13). Furthermore, the presence of a femorofemoral bypass, in which the dacron prosthesis is placed in an inguinocrural topography, associated with cicatricial fibrosis processes, makes open surgery more difficult and with greater risks of complications (13).

A mesh repair is recommended regardless of the approach used (7), its most traditional position being the preperitoneal one (7). In cases of intraperitoneal mesh placement, the use of composite or covered mesh is advocated to reduce postoperative adhesions, which significantly increases the cost of treatment (14). Respecting the concept of overlap, it is mandatory to overlap the mesh that exceeds the neck of the hernia by at least 5 cm (14).

The chosen access route, transabdominal (laparoscopic) pre-peritoneal,

had the advantage of less parietal trauma, manipulation of a surgical plane that had never been operated before, and distance from the Dacron prosthesis (15). The operative technique was similar to that applied for surgical correction of inguinal hernia alone, with enlargement of the cranial dissection and placement of a larger mesh.

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