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Hybrid Transvaginal Ventral Hernia Repair

Eventroplastia transvaginal híbrida

The development of new techniques such as natural orifice surgery seeks to improve clinical and aesthetic results in different fields. It has been successfully used to performed procedures such as appendectomies, cholecystectomies, and oncologic colon resections.¹ Nevertheless, there are few published reports about the use of this approach in the management of ventral hernias.^{2,3}

We present the case of a 58-year-old woman with hypothyroidism, 2 vaginal deliveries and surgery for epigastric hernia who consulted for pain and a mass along the scar of the previous surgery. Abdominal examination discovered a recurrent hernia, which was reductible, along with an aponeurotic defect measuring 4 cm in diameter. We proceeded with the repair using a hybrid transvaginal approach, starting with the preoperative administration of 2 g of amoxicillin-clavulanate and perineal/vaginal lavage of diluted povidone-iodine solution.

With the patient in the modified Lloyd-Davies position, the surgeon stood on the left and the assistant surgeon stood between the patient's legs. Pneumoperitoneum was created with a transumbilical Veress needle, and then a 5-mm trocar was inserted in the left flank for the later use of forceps and the stapler to attach the prosthesis. Through the orifice of the Veress needle, a 3-mm trocar was introduced to provide access for mini-instruments (Fig. 1).

The patient was placed in forced Trendelenburg position. With the laparoscope (5 mm 0° optics, through the 5-mm port) an extra-long optical trocar (150 mm) was inserted through the posterior vaginal fornix (12 mm EndoPath[®] Xcel[™]), which we later used to insert the mesh and optics (10 mm and 30°). The transvaginal trocar was protected with a sterile plastic

sheath and the pouch of Douglas was washed with a povidone-iodine solution (Fig. 2). After releasing the omental adhesions of the hernia sac using the 2 abdominal ports as working channels and the transvaginal trocar to insert the 30° optic, we proceeded with the mesh placement (Ethicon Physiomesh[™] Flexible Composite Mesh). The patch was rolled up for insertion through the vaginal trocar without any further protection and subsequently fixed with 2 crowns of absorbable straps (Ethicon Securestrap[™] 5 mm Absorbable Strap Fixation Device) (Fig. 1). Afterwards, the 3 and 10 mm trocars were removed under direct vision (5 mm 0° optic through the trocar of the left flank) and the vaginal opening was closed vaginally with 2 polyglactin sutures (910 2/0) and the abdominal skin with monofilament (3/0). The patient had a favourable postoperative course and was discharged from the hospital 36 h after surgery and continued to be asymptomatic one month later.

The benefits of the laparoscopic approach in the treatment of ventral and abdominal wall hernias have been demonstrated in several studies, including lower risk of wound infection and shorter hospital stay, with recurrence rates that are lower than open surgery in many reports.⁴ Furthermore, in order to minimize parietal aggression, mini-instruments have been developed, which allow for dissecting, resecting and manipulating different structures within the abdominal cavity through minimal 2-3 mm incisions with accuracy and safety. The transvaginal approach aims to avoid abdominal incisions and provide aesthetic, pain-related and structural benefits.⁵

Thus, the combination of the benefits of these treatment approaches for abdominal wall disease is the basis for the

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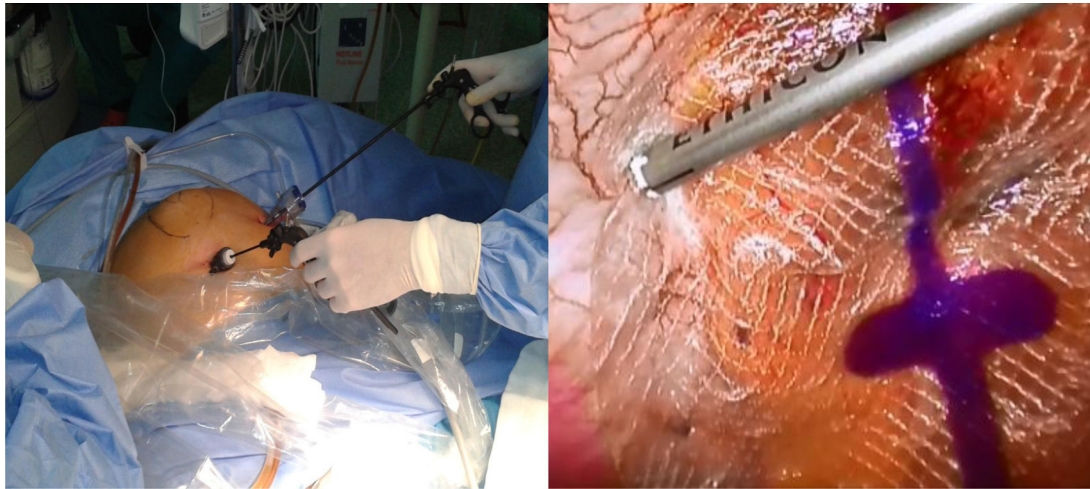


Fig. 1 – Position of the abdominal trocars and laparoscopic visualization of mesh placement.

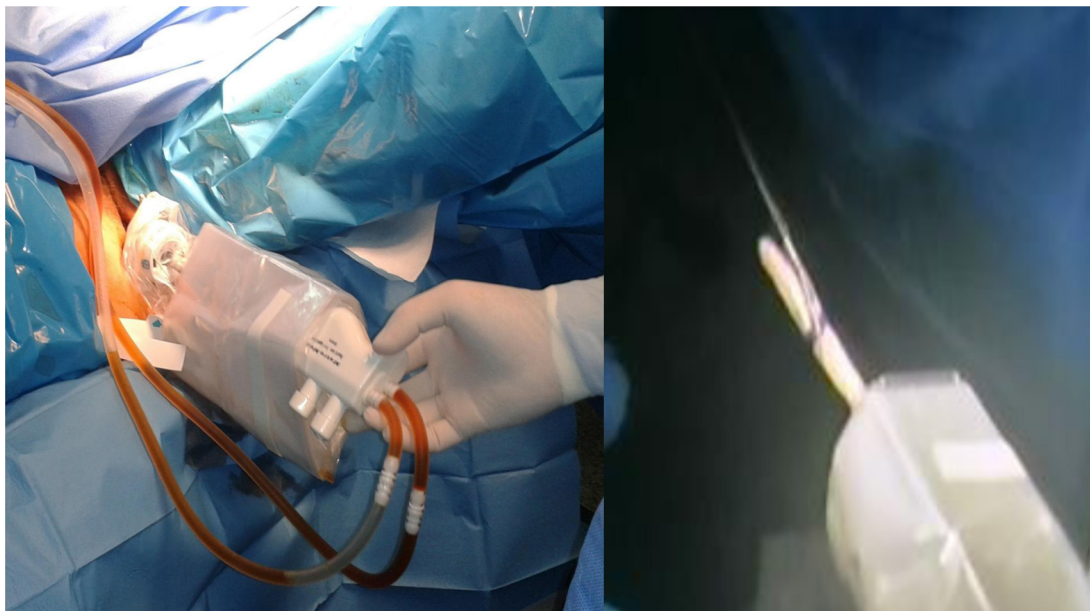


Fig. 2 – Protective plastic sheath, lavages and introduction of the mesh through the transvaginal trocar.

development of the technique described. It avoids having to make an abdominal incision for placement of the 10–12 mm trocar usually used for the placement of the mesh and stitches, if necessary, with the potential risk for recurrent incisional hernia of 1%–6% according to the literature.^{6,7} Other groups have proposed inserting this 10–12 mm trocar through the aponeurotic hernia defect itself while using other 5 mm ports,⁸ thus avoiding the creation of another fascial defect.

Although septic complications associated with the transvaginal approach are rare (less than 1%),⁹ to prevent possible intraabdominal and mesh contamination from being introduced through the transvaginal trocar, we applied the following measures: preoperative antibiotic prophylaxis, use of a sterile sheath for the entry of the transvaginal trocar in the perineum, change of gloves before handling the

prosthesis and lavages of the pouch of Douglas through the transvaginal trocar with a povidone-iodine solution diluted to 20%. Other complications associated with the transvaginal approach are mild and uncommon, such as bleeding or local pain. A period of sexual abstinence is recommended for 2–3 weeks.

We believe that the technique we present is simple, safe and reproducible. It is a valid option in selected cases of women with no history of pelvic surgery or gynaecological problems (pelvic inflammatory disease, endometriosis, etc.) with umbilical hernias and aponeurotic defects smaller than 8 cm without contraindication for laparoscopic repair. The use of flexible endoscopes with the transvaginal access may also be useful for improving visualization at distant points of the pelvis and lateral wall of the abdomen.¹⁰

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Single Port Distal Pancreatectomy Without Spleen Preserving Esplenopancreatectomía corporocaudal por puerto único

The consolidation of distal pancreatectomy (DP) in laparoscopic surgery is supported by several published studies that demonstrate the safety and efficacy of this technique.¹⁻³ At the same time, the current trend toward being less and less aggressive has led to the development of single-port surgery. These techniques are being applied in new diseases and organs each day, while increasingly complex techniques are being developed.⁴⁻⁶ Some authors suggest that single-port DP may become a reality in the not-too-distant future. However, the current experience in single-port DP is limited, and only a few cases have been reported in the literature.⁷⁻⁹ Nevertheless, we believe that in the hands of experienced laparoscopic surgeons, single-port DP is a promising surgery that will increasingly develop in coming years. We present our initial experience with single-port distal spleno-pancreatectomy.

This case is a 39-year-old patient, with no prior history of interest, who came to our consultation due to abdominal discomfort. Abdominal ultrasound detected a lesion measuring 45×43 mm in the body/tail of the pancreas. The preoperative evaluation included a CT scan with IV contrast and oral endoscopic ultrasound, which showed a 5×5 cm mass at the junction of the body and tail of the pancreas, consistent

with a possible pseudopapillary tumor with inner necrosis that infiltrated the splenic vein (Fig. 1A). No lymphadenopathies were identified. FNA confirmed an epithelial neoplasm suggestive of malignancy. Subsequently, the patient was scheduled for single-port distal spleno-pancreatectomy.

Under general anesthesia, the patient was placed supine decubitus in the French position. After extensive lavage of the navel, access to the abdominal cavity was performed through a transverse transumbilical incision measuring 2.5 cm. A SILS port device (Covidien Ltd., Norwalk, CT, USA) was inserted, large enough for two 5-mm and one 12-mm trocars. Subsequently, pneumoperitoneum was created with carbon dioxide at a pressure of 14 mmHg. Through one of the 5-mm trocars, rigid 30° optics were introduced (Olympus Ltd., Hamburg, Germany), providing direct visualization for the insertion of the two remaining trocars. Through the free 5-mm trocar, roticator-grasper forceps were inserted (Roticator™ Endo Dissect™, Covidien Ltd., Norwalk, CT, USA) and held in the left hand of the surgeon. The 12-mm trocar was used to insert the remaining instruments. The patient was placed in an anti-Trendelenburg position and right lateral decubitus to facilitate the exposure of the pancreas.

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