Primary posterior perineal hernia. Case report and review of the literature

ABSTRACT

Background: Perineal hernias may occur after the completion of surgery in this region or may occur as a primary lesion. Among the less frequent are the perineal hernias.

Clinical case: We present the case of a 42-year-old female patient with a spontaneously occurring perineal tumor mass on the right side of the anus of 5 years of evolution, with dimensions of 6 × 10 cm. The mass was soft and reducible behind the transverse perineal muscle. Due to a diagnosis of primary posterior perineal hernia, surgery was performed at the perineum with Mersilene mesh placement. There was no recurrence after an 18 month follow-up.

Conclusion: Perineal plasty may be a good alternative for the surgical treatment of primary perineal hernias because it allows for a better seal, dissect the hernia sac and appropriately reduces it.

Key words: Perineal hernia, perineal plasty.
INTRODUCTION

Perineal hernia protrudes between the muscles and the fascia that form the floor of the perineum. These hernias may appear after surgery in this region or can manifest as a primary lesion. Perineal hernia is among the less common types of hernias. Currently, about 100 cases are reported in the international literature of primary perineal hernia. An article published by Koontz notes that in 1736 Garengeot reported the first case of true primary perineal hernia and in 1821 Scarpa reported a case of intestinal strangulation in a perineal hernia. In 1938, Hall collected 83 cases reported in the world literature. A case of primary perineal hernia was reported and was later treated at the Hospital Juárez of Mexico.

CLINICAL CASE

We present the case of a 42-year-old female patient who was a native and resident of the state of Michoacán. She had a history of six pregnancies, all vaginally delivered at full-term with the last pregnancy 8 years prior to presenting to the hospital. The condition she presented was a tumor in the perianal region with a 5-year evolution. It was located to the right of the anal orifice, which appeared after physical exertion. The initial diameter was 3 cm and increased to 6 x 10 cm (Figure 1) and had a soft consistency that reduced with maneuvering from behind the transverse perineal muscle (Figure 2).

Laboratory tests reported discrete hematic cytology anemia (hemoglobin of 11.4 g/100 mL) and Entamoeba histolytica cysts in the stool specimen. Both abnormalities were corrected with medical treatment.

To rule out elements of the urinary system or the digestive tract in the hernia sac, the following procedures were performed: excretory urography, barium enema and intestinal transit. Computed axial tomography also dismissed these elements in the hernia sac and allowed the identification of the defect in the base of the perineum through the levator ani muscle, which was ~5 cm in diameter.

The patient underwent surgery with a diagnosis of primary perineal hernia. She underwent dissection and opening of the herniated sac that protruded through the levator ani muscle. The hernia sac and the omentum that was inside were resected, the hernia ring (~5 cm diameter) was closed and Mersilene (Ethicon) mesh was
fixed to the surrounding structures. Superficial surfaces were dealt with, as well as the skin above it. The patient had a satisfactory evolution with no lesion recurrence for 18 months after surgery. Late postoperative follow-up of the patient was lost.

**DISCUSSION**

Primary perineal hernia occurs more often in females than in males (ratio 5:1). It is most common between 40 and 70 years of age. The protrusion occurs through the pelvic floor formed by the levator ani, the coccygeal muscles and its fascia. Taking as a reference the transverse muscle of the perineum, perineal hernias are classified as anterior and posterior.\(^5\) The contents of the herniated sac of the anterior type can be the bowel or bladder, whereas in the posterior type it is usually found in the omentum or intestine.

Diagnosis is established by the reducibility of the tumor and the direction in which reduces determines the variety of the perineal hernia. A percussion tumor can be dull if it contains bladder and tympanic if it contains intestine. Excretory urography and barium enema allow for definition if the urinary tract or the large intestine is involved in the hernia sac.

In this type of hernia, treatment is surgical and this procedure poses a surgical challenge. The principles of treatment are the same as those recommended for other types of hernias: dissection of the hernia sac, content reduction, resection of sac and closure of the hernia defect.\(^6\)

The repair by abdominal route is recommended in secondary perineal hernia, especially when these appear after abdominal surgery for malignancy because it is possible to explore the cavity for tumor recurrence or metastasis.\(^7\) Another indication of repair through an abdominal route is recurrent perineal hernia or any associated disease such as rectal prolapse.\(^8\)

Perineal repair is attractive because it allows the resolution of this type of hernia without entering the abdominal cavity, especially in cases in which this exploration is not required.\(^6\) The patient reported in this study had a primary perianal hernia and there was no history of abdominal or pelvic malignancy or suspicion of another abdominal problem; hence, the chosen route of the procedure was the perineal.

Surgical techniques with perineal routes include: single closure planes, transposition of a semitendinosus muscle flap or gluteus maximus, placement of synthetic or biologic mesh and retroflexion of the uterus for closure of the hernia defect.

Kravarusic et al.\(^9\) suggest that primary closure of the perineal hernia defect is a good treatment option in children without any other alterations. The use of muscle flaps of gluteus maximus and semitendinosus muscle can injure the sciatic nerve or cause fecal incontinence.

The use of prosthetic materials in the treatment of hernias arose from the need for a simple procedure that would increase the resistance of the tissues and avoid stress on the anatomic structures surrounding the hernia defect. The placement of mesh can be by abdominal or perineal approach, and these can be synthetic or biological.\(^10-12\) Nivatvongs\(^6\) denotes that the perineal approach (with or without mesh placement) is successful in most cases and that the abdominal approach is best reserved for the treatment of recurrent hernias. The combined approach for abdominal and perineal approaches may allow greater abdominal and pelvic exposure; however, it is recommended only in special cases where a wide exploration is required or is associated with any other condition.
Battaglia et al.\textsuperscript{13} used an abdominal and perineal approach in the case of a patient with a giant perineal hernia that obstructed the small intestine. Nieto-Zermeno et al.\textsuperscript{14} used this type of approach in a 7-month-old female with primary elastosis. Washiro et al.\textsuperscript{15} reported the case of an 81-year-old female with primary posterior perineal hernia in which the uterus was used to reinforce the pelvic floor.

In a study conducted by So et al.\textsuperscript{16} in 19 patients who required surgery for postoperative perineal hernia secondary to abdominoperineal resection for rectal cancer, 13 closures were performed through perineal route, three through the abdominal route and in three cases the combined approach was used. The overall recurrence rate in this type of secondary perineal hernia was 16% after 12 months of follow-up. In the patient reported here, there was no recurrence after 18 months of follow-up after the perineal repair.

With the advent of laparoscopic surgery, some cases have been reported where this approach has been used for the treatment of perineal hernia. Gómez Portilla et al.\textsuperscript{17} reported a case of giant perineal hernia, combining laparoscopic mesh placement and perineal approach. Casasanta and Moore,\textsuperscript{18} referring to perineal hernia secondary to abdominal-perineal resection, indicate that the laparoscopic approach may be a good option for treatment, but they have not gathered sufficient experience; however, in this type of secondary perineal hernia, criteria of the abdominal cavity exploration prevails to rule out metastasis or tumor recurrence. Rayhanabad et al.\textsuperscript{19} reported two patients with perineal hernia treated by laparoscopy. In one of the cases, the perineal hernia was spontaneous in a patient with a history of polio and in the other case was a secondary perianal hernia to an abdominal perineal resection by laparoscopy. In the first case, the repair was performed without mesh and the second received a synthetic mesh. Sorelli et al.\textsuperscript{20} described a case of primary perineal hernia resolved laparoscopically with mesh placement and showed that, in the future, this may be the route of choice; however, cases treated in this manner are still few.

In conclusion, surgical treatment of primary perineal hernia with a perineal approach allows a better closure of the hernia orifice with adequate dissection and reduction of the sac. In the international literature there is little reported experience with this type of hernia; therefore, it is not yet possible to determine the best form of treatment; although the perineal approach may be a good alternative.

**REFERENCES**


