

Case Report**PERINEAL HERNIA AFTER ABDOMINOPERINEAL
LAPAROSCOPIC RESECTION – CASE REPORT****Vanja Pecić¹, Milica Nestorović^{2,3}, Ivan Pešić^{2,3}, Dragan Mihajlović², Ljiljana Jeremić^{2,3}, Marko Gmijović²,
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Abstract. *A perineal hernia can severely affect everyday activities. We represent a case of a sixty-five-year-old with perineal hernia after abdominoperineal resection for rectal cancer. Bulging in the perineum appeared 24 months following operation with uneventful postoperative course. She felt pain and difficulty while sitting. At physical examination the defect in perineum was approximately 3x3 cm. After cancer recurrence had been excluded, hernioplasty was planned. A 10x15 cm composite mesh was used for pelvic floor reconstruction. The mesh was sutured through urogenital diaphragm. Postoperative course was uneventful. Three years after surgery, there was no recurrence of cancer or hernia. Repair of perineal hernia is challenging, with limitation regarding guidelines in literature.*

Key words: *perineal hernia, abdominoperineal resection, prosthetic material.*

Introduction

Perineal hernia is the protrusion of intra-abdominal viscera through the pelvic floor. The etiology can be congenital, but most perineal hernias occur as an incisional hernia following pelvic surgery [1,2]. Perineal hernia after abdominoperineal resection (APR) was first reported in 1937 [3,4]. The prevalence of perineal herniation is low, ranging from 0.6% to 7%, and condition may be asymptomatic [2]. The reported incidence of perineal hernia requiring repair is <1% after APR and approximately 3% after pelvic exenteration [3]. Surgical repair is the only effective method of treatment; however, because of the complex anatomy of the pelvic floor and high abdominal pressure, the repair of these hernias is challenging. The recurrence rate is reported to be up to 37% [1]. Various approaches have been described, including abdominal, perineal and combined approaches, either simply by closing the pelvic defect or using autologous or prosthetic material [3,5]. The literature describing a successful repair technique is limited. The reported cases are rare or span over a long period in which different techniques are compared and even non mesh techniques were used. Various methods of repair have been described, but none is well established [1,2,6].

Case report

A sixty five year old woman came to the office complaining on painful bulging of the perineum 24 months after

abdominoperineal laparoscopic resection for rectal cancer with uneventful postoperative course (Fig.1). The size of the protrusion increased gradually. In the last three 3 months patient had felt pain and difficulty while sitting. At physical examination the defect in perineum was approximately 3x3 cm wide. The laboratory and biochemical results were within the referent range, the finding on abdominal and pelvic imaging were normal with tumor markers also within normal range. She denied other symptoms other than pain and discomfort while sitting. Apart from rectal cancer she had no previous medical history and no family history. After cancer recurrence had been excluded, hernioplasty was planned. A standard preoperative evaluation was performed. One dose of intravenous broad-spectrum antibiotic was administered 30 minutes prior to surgery. The patient was placed in a lithotomy position combined with steep Trendelenburg to allow save access to the perineum. The urethral catheter was placed to decompress the bladder. An elliptical incision was made over the hernia defect and hernia sac was dissected and opened. Intraoperative the defect measured 4x6cm (Figs. 2, 3). The pelvic defect could not be primarily sutured due to prior radical resection of the levator ani muscle. A 10x15 cm composite mesh (Parietex composite mesh) was used to reconstruct the pelvic floor (Fig. 4). The mesh was trimmed according to shape of the defect, with an overlap of at least 3cm in each direction, and was inserted through the perineal defect. The mesh was sutured through urogenital diaphragm. The perineal incision was closed with 2-0 Prolene (Fig. 5). Patient was discharged on fourth postoperative day. Postoperative course was uneventful. Three years after surgery there was no recurrence of the disease or hernia.

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Fig. 1



Fig. 4

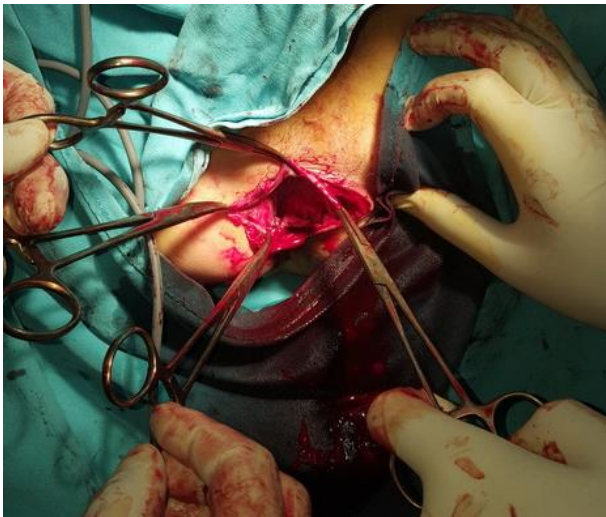


Fig. 2



Fig. 5



Fig. 3

Discussion

Despite evidence in the multimodality treatment, radical surgery remains the most important prognostic factor in rectal cancer [1,7]. The large pelvic wall defect after wide excision and the previously radiated tissue may induce postoperative perineal hernia. Other various factors also may facilitate the development of perineal hernia after abdominoperineal excision, including the large size of the female pelvis, previous hysterectomy, neoadjuvant treatment, excision of the levator muscles, smoking, and wound infection [3,8], although in this case none of these factors were present. During laparoscopic APR, the pelvic peritoneum is left open. In addition, laparoscopic surgery causes fewer postoperative adhesions in the abdominal cavity than conventional surgery, so the small bowel may more easily slide into the perineal area. These factors could predispose to the development of perineal hernia. The majority of perineal hernias after APR are asymptomatic and undiscovered. However, symptoms

may include bulging, discomfort, pain, small bowel obstruction, and dysuria. The diagnosis of perineal hernia can be difficult unless significant signs and symptoms become evident. The physician should have a high index of suspicion in patients presenting with perineal pain, even if no bulging mass is discovered with herniography, CT, barium enema studies and dynamic magnetic resonance imaging [9]. The indication for repair of perineal hernias is patient discomfort while sitting, skin erosion, intestinal obstruction, and dysuria. Although various approaches for perineal hernia repair have been proposed, there is no consensus on the optimal technique. Current management options include abdominal, perineal and combined approaches [9,10]. However, the reported recurrence rates after perineal repair are high, ranging from 16% [11] to 25% [12], 37% [13] and even 100% [1]. The high recurrence rate may result from the complexity of the pelvic floor anatomy and the high abdominal pressure exerted on the pelvic floor in a standing

position. Although the perineal approach is considered less invasive, it has the inherent drawbacks of poor exposure, paucity of musculofascial tissue mobilization, less durable fixation, and inability to address intra-abdominal adhesions [1,3]. The wide experience in use of absorbable or non-absorbable prostheses (mesh) to repair different types of hernia, their easy application, low complication rates and good results make them an important option in the treatment and even prevention of perineal hernia after abdominoperineal excision.

Conclusion

Repair of perineal hernia after abdominoperineal resection represents a significant challenge for coloproctologist considering the fact there are no guidelines. The reported cases are rare or span over a long period in which different techniques are reported, but none is well established.

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