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CASE REPORT

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Meshless repair of perineal hernia after abdominoperineal resection: case report

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Abstract Perineal hernia is a rare complication after major pelvic surgery. Placing non-biodegradable mesh across the pelvic inlet is the best method of repair. A 72-year-old man presented with a perineal hernia 8 years after undergoing an abdominoperineal resection because of rectal cancer. During the repair operation, intestinal spillage occurred, making it impossible to place permanent mesh as planned. Instead, we used the bladder to cover the pelvic inlet. The patient recovered well and after 35 months of follow-up, there was no evidence of hernia recurrence. When mesh placement is not feasible, this bladder mobilization technique can replace it.

Key words Perineal hernia • Abdominoperineal resection • Complication

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Introduction

Perineal hernia formation is an infrequent but well-recognized complication after abdominoperineal resection of rectum [1, 2]. The incidence of hernias requiring repair has been estimated at 1% of abdominoperineal resections and 10% of pelvic exenterations [3, 4]. The usual methods of repair use transabdominal and transperineal approaches [1, 5–8]. In this report we describe a new technique for perineal hernia repair using a transabdominal approach in situations when the application of non-absorbable mesh is contraindicated.

Case report

A 75-year-old man presented with a symptomatic perineal hernia 8 years after undergoing abdominoperineal resection followed by pelvic radiation for treatment of rectal cancer. Symptoms of the hernia included discomfort and skin maceration with ulceration, and the likelihood of a future small bowel fistula was considered high (Fig. 1).

Fig. 1 Perineal hernia

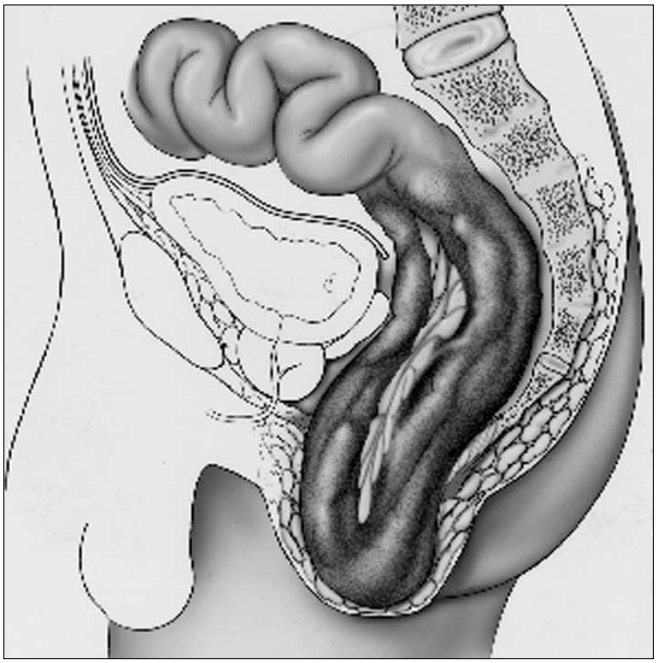

Fig. 2 Radiated loop of bowel adhered to the coccyx and the hernia sac

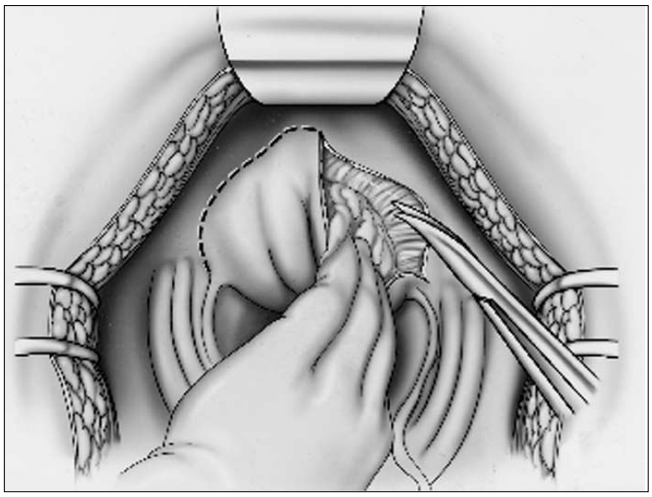

Fig. 3 Bladder is mobilized superiorly and laterally

Transabdominal repair by applying permanent mesh over the pelvic inlet was recommended [1]. The patient received preoperative mechanical bowel preparation and prophylactic antibiotics. He was placed in the Lyodd Davis position and ureteric stents were placed prior to incision. During the surgery, multiple inadvertent enterotomies were created when a radiated loop of small bowel was mobilized which was adhered to the tip of the coccyx and the hernia sac (Fig. 2). As a result of the enterotomies, enteric contents spilled and the bowel had to be resected and reanastomosed, which made it impossible to apply the permanent mesh as planned. During the mobilization to gain exposure, we had to mobilize the bladder superiorly and laterally (Fig. 3). This mobilization brought the dome of the bladder to a position where it covered the pelvic inlet. We tagged pre-peritoneal fat over the bladder to the endopelvic fascia posteriorly and laterally to cover the pelvic inlet, making the bladder itself into a barrier between the bowel and the perineum (Fig. 4). The postoperative period was uneventful. The patient experienced some urinary frequency and urgency, but this resolved spontaneously by the 6-week follow-up visit. As of postoperative month 35, there has been no evidence of hernia recurrence.

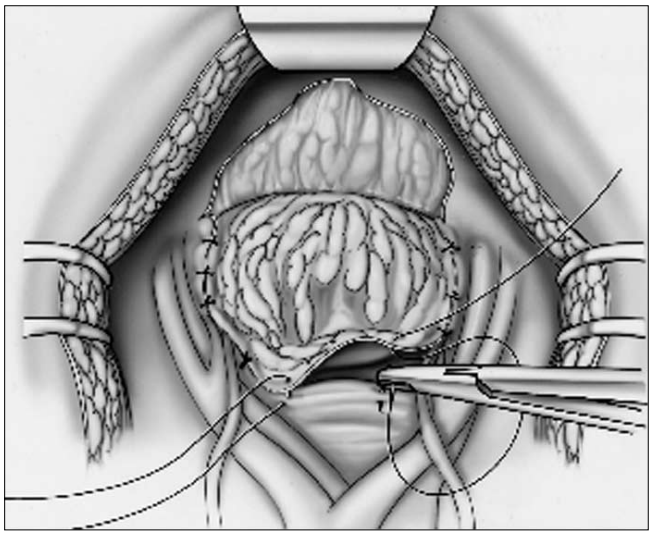

Fig. 4 Preperitoneal fat over the bladder was sutured to the endopelvic fascia posteriorly and laterally to cover the pelvic inlet

Discussion

Various methods of perineal hernia repair have been proposed. Earlier reports recommended a perineal approach [4, 7], which was believed to cause less morbidity. However, the perineal approach does not allow the pelvic inlet to be reached, and it is difficult to divide the adherent small bowel loops in the hernia sac. In addition, if bowel or a vascular structure is injured, it is difficult to repair because exposure is limited from the perineum [2]. In contrast, the abdominal approach allows the surgeon to confirm the absence of cancer recurrence and to mobilize the small bowel under direct vision. Despite the fact that there is no definite consensus, based on our experience, we believe that symptomatic perineal hernias are better repaired via an abdominal or combined approach using non-absorbable mesh [1]. However, in cases where insertion of mesh is not feasible, the bladder placement technique described here can replace the mesh application.

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