Cohort Study Parastomal Hernia-Repair Using Mesh Technique

Salih Tosun, Oktay Yener, Ozgur Ekinci

1,2,3 Istanbul Medeniyet University Goztepe Educational Hospital Istanbul, Turkey

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Introduction
Parastomal hernias are parietal defects adjacent to the stoma site, after ileostomy and colostomy. Although they are rarely encountered they determine special therapeutic problems. The incidence is variable, they are generally underestimated and are probably at 30-50%, with one-third requiring operative correction.

Aim
Developing parastomal hernia after formation an ileostomy or colostomy is more common. However, no consensus has been consisting on treatments of parastomal hernia. Recently, more enthusiasm exists on laparoscopic repair of parastomal hernia.

The aim of this study was to review of parastomal hernia and evaluate patients who are operated in our clinic.

Methods
At the Surgical Department of Istanbul Goztepe Educational Hospital, between 2008 and 2017, 11 parastomal hernias were operated.

A midline incision through the prior incision site at the level of the stoma or a circumstomal, curvilinear incision outside the limits of the stomal faceplate was created. Following subcutaneous dissection and identification of the hernia defect, the hernia sac was entered and freed circumferentially from the stoma. The prolapsed intestine was reduced into the abdomen. The fascial defect was closed with mesh reinforcement.

Results
The patients with parastomal hernia had the following distribution by gender: male/female = 4/7. The mean age of the patients was 69.7 years. 11 patients presented with parastomal hernia and 1 of them underwent emergent surgery.

Conclusions
Parastomal hernia is a relatively rare disease compared to the number of incisional hernias. With increasing life expectancy stands we noted increased incidence of parastomal hernia as well. Prophylactic use of mesh during the primary operation is a safe procedure and reduces the risk of parastomal hernia.

Parastomal hernias are parietal defects adjacent to the stoma site, after ileostomy and colostomy[1]. The main etiologies are given technical errors, stoma outside the sheath of the rectus abdomins muscle and patient’s predisposing factors (obesity, wound infections, malnutrition, old age, pulmonary diseases, immune status, cancer recurrence) [2]. The most important problem is a high recurrence of parastomal hernia after suture repair or relocation of the stoma, mesh repair by open or laparoscopic approach resulting in much lower recurrence rates. Because yet many more studies are needed to determine which method of repair is better, longterm follow-up of the various techniques offers incomplete data [3].
Methods
At the Surgical Department of İstanbul Göztepe Educational Hospital, between 2008 and 2017, 11 parastomal hernias were treated. Routine Mesh repair was performed all of the cases. Patient age, sex, and body mass index (the weight in kilograms divided by the height in meters squared) were recorded. Whether the operation was an emergency and whether it was for a malignant tumor, diverticulitis of the sigmoid colon or inflammatory bowel disease was recorded. Wound infection and infection associated with the mesh were recorded continually. Patients were examined, straining in both an erect and a supine position, after 1 and 12 months for the presence of a parastomal hernia. A protrusion in the vicinity of the stoma was considered to be a hernia. Pain in the area of the stoma and signs of fistula formation were recorded.

Operative procedures
We have performed sublay polypropylene mesh placement surgical techniques. A circular skin incision is made and the skin and subcutaneous tissue excised. An incision is made in the anterior rectus sheath, then the rectus muscle is split and the posterior sheaths along with the peritoneum are incised.

Results
The patients with parastomal hernia had the following distribution by gender: male/female = 4/7. The mean age of the patients was 69.7 years. All of the cases, the parastomal hernia occurred after loop colostomy.

There are several classification systems for parastomal hernias that are based on size, location, contents, and radiologic findings associated with the hernia; however, none of these have much bearing on the clinical diagnosis or management strategy[4,5,6]. Most patients with parastomal hernias are asymptomatic and diagnosis is typically based on physical exam. The most common presentation is a bulge at the site or adjacent to the site of the stoma. Other symptoms include mild abdominal discomfort, intermittent cramping, distention, nausea, vomiting, diarrhea, and constipation. Nonoperative management is a reasonable initial strategy because of the potentially high recurrence rate after a parastomal hernia repair. Most patients can successfully be managed with patient education, weight loss, and an ostomy hernia belt[7]. However, it is estimated that 30 to 56% of patients with a parastomal hernia will ultimately require surgical repair[8]. A strangulated or incarcerated hernia is an indication for urgent/emergent surgical repair because of the risk of ischemic bowel. Indications for elective repair include chronic obstruction, pain, appliance leakage, discomfort from an ill-fitting appliance, or peristomal skin breakdown.

Indications for surgical treatment are absolute only in the presence of complications - obstruction, strangulation, the rest need an accurate assessment of risk. The main techniques used are fascial repair, stoma relocation and prosthetic mesh repair by laparotomy or laparoscopic intra-peritoneal mesh repair. Fascial repair and stoma relocation have a high Figure 5. Relocation of the stoma 183 rate of complications (24-88%) and a high rate of recurrence (46-100%) [9] Mesh repair is considered to be a safe procedure with low risk of mesh infections. Prosthetic mesh repair has a recurrence rate of up to 28% [10].

References
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