

Parastomal Patch for Laparoscopic Repair of Parastomal Hernia: Description of the Technique

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Parastomal Patch for Laparoscopic Repair of Parastomal Hernia: Description of the Technique

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INTRODUCTION

The incidence of parastomal hernia has been shown to be greater than 30%. During the initial procedure, it has been shown that there is no difference based on stoma site, closure of lateral space or mesenteric fixation at the peritoneal level. The options for parastomal hernia are local repair, stoma relocation or repair with prosthetic material. There is a high incidence of recurrence with primary repair (up to 76%). Previous studies have shown that with stoma relocation, the overall incidence is the same as previous hernia and there is compromise to the abdominal wall. It has also been shown that the use of prosthetic mesh decreases hernia recurrence rate. The parastomal patch that we used was created with the parastomal hernia problem in mind. The Bard CK Parastomal hernia patch is made of monofilament polypropylene on the anterior surface, for strong tissue ingrowth, and ePTFE on the visceral surface, to minimize tissue attachment to the prosthesis. The patch is pre-shaped with an opening to accommodate the stoma and a reinforced ePTFE collar surrounds the opening. We describe our operative technique using this patch.

OPERATIVE TECHNIQUE

After general anesthesia is administered, an 18 French Foley catheter is placed into the ileal conduit. The Foley balloon is inflated until no urine/stool drains around the balloon. The stoma and Foley are prepped and covered with a 4x4 gauze and tegaderm. The patient's abdomen is prepped and draped in a sterile fashion. An loban drape is used to cover the entire field. Because of previous laparotomy, entry to the abdomen is obtained through left upper quadrant. A small skin incision is made followed by a Veress needle. The abdomen is insufflated to a pneumoperitoneum of 15 mmHg. Following this, a 5 mm Visiport optical trocar containing the laparoscope was used to keep the entire the peritoneum under direct visualization. An area in the left mid-abdomen (mid-axillary line) for placement of a 10 mm port is dissected. This allows for adhesions to be carefully taken down using sharp dissection to provide access for another port in the left lower quadrant. Adhesiolysis is performed until the hernia is identified. The hernia content is reduced from the hernia sac. Two #1 Ethibond sutures are placed on the Bard® CK™ parastomal hernia patch at the 6 and 12 o'clock position. The mesh is then rolled tightly and introduced into the peritoneum via the 10 mm port. Previously placed #1 Ethibond is then taken through the abdominal wall using the Endoclose device. The mesh is placed with the tails encircling the stoma on the side opposite the hernia defect. A tackler is utilized to secure the mesh in position circumferentially. The final result is a flat piece of mesh encircling the stoma without the mesh being too tight (one grasper tip between the mesh and the stoma) repairing the defect completely. A small flap of the mesh next to the bowel is secured to the mesentery using 2-0 vicryl suture.

CONCLUSION

The parastomal patch designed specifically for the parastomal problem is a great option for both open and laparoscopic parastomal hernias. There have been discussions about ePTFE and increased risk of infection both of which remain an issue. However, to date we have not had to remove the mesh because of infection in any of the cases. The Sugarbaker technique, and its various modifications, is widely used for parastomal hernias and has been widely reported. In our small experience, we have shown that laparoscopic repair of parastomal hernias utilizing the Bard CK parastomal patch is a safe and feasible technique. However, further prospective studies and long-term follow-up comparing to the Sugarbaker technique are needed to determine the true efficacy of this particular approach.



Fig 1. The Bard CK Parastomal hernia patch.



Fig 2, 3. Preoperative CT scans of two patients showing large parastomal hernias.

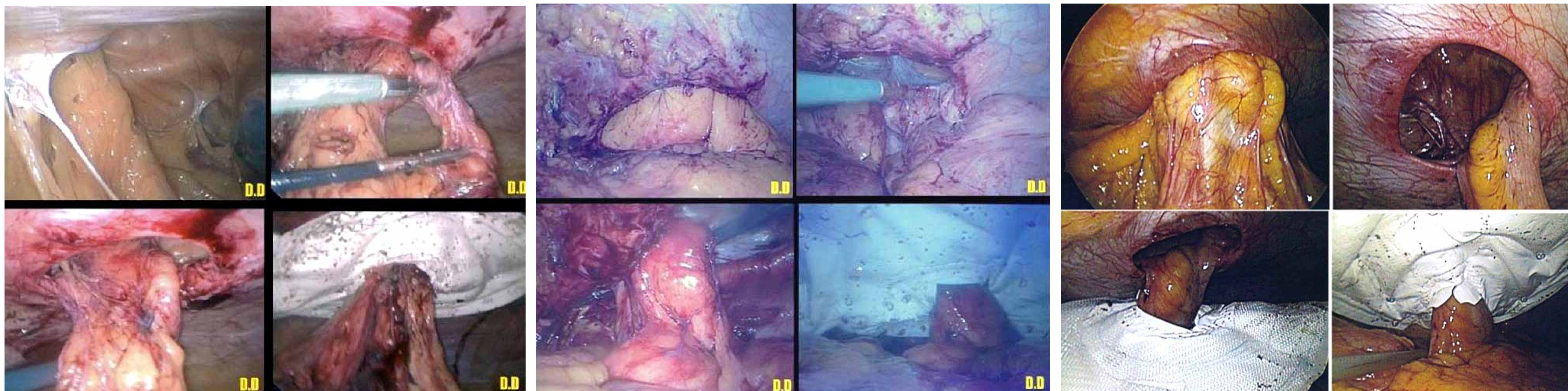


Fig 4, 5, 6. Illustrates three cases utilizing the patch.