

# A Rare Case of Strangulated Parastomal Hernia after 30 years of Stoma Construction

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## ABSTRACT

Parastomal hernias (PSH) are likely to increase the incidence due to more number of cases being operated for carcinoma of colon and rectum. Though there is less literature on this subject our aim is to prevent occurrence of parastomal hernia by various preventive steps like taking transverse incision, repairing with mesh, correcting the patient related risk factors. Early diagnosis and repair of obstructed parastomal hernia is necessary to prevent morbidity and mortality including recurrence.

**Keywords:** Parastomal hernias, colostomy, stoma construction

## INTRODUCTION

A parastomal hernia (PSH) is a type of incisional hernia that occurs at the site of the stoma or immediately adjacent to the stoma. Majority of the parastomal hernias occur within 2 years.<sup>[1]</sup> We report a rare case of parastomal hernia with obstruction, which has occurred after 30 years due to an end colostomy done for rectal carcinoma.

## CASE REPORT

A 80 year old male patient came to hospital with complaints of swelling in left lower quadrant of abdomen encircling the stoma since one day. Pain abdomen and vomiting since one day. Patient was asymptomatic one day ago then developed pain and swelling in left lower quadrant of abdomen around stoma, which is sudden in onset, rapidly progressive attained present size within one day with 6 episodes of vomiting which was bile stained. H/o not passing stools, flatus through stoma since one day. H/o straining for urine with narrow stream

since 2 years. Surgery done 30 years back for rectal carcinoma with end colostomy (AP resection). No history of radiation and chemotherapy.

### Local Examination

**On Inspection:** Abdomen distended umbilicus central, midline scar present, swelling size approximately 10x10 cm tubular in shape present around colostomy. Prolapsed mucosa.

**On Palpation:** No local rise of temperature, tenderness present over swelling. Swelling was soft and tense in consistency non reducible / no expansile cough impulse / non pulsatile skin over the swelling pinchable colostomy prolapsed admitting finger no mass / no faecal matter felt.

### Investigations

**USG Abdomen:** dilated bowel loops with to and fro peristalsis noted by the side of stomal opening. X-ray erect abdomen multiple air fluid levels present.



Figure 1: Parastomal hernia around the colostomy



Figure 2: X-ray erect abdomen showing multiple air fluid levels



Figure 3: Herniated sac along with contents



Figure 4: Bowel loop with proximal & distal gangrenous constricting ends



Figure 5: Post operatively

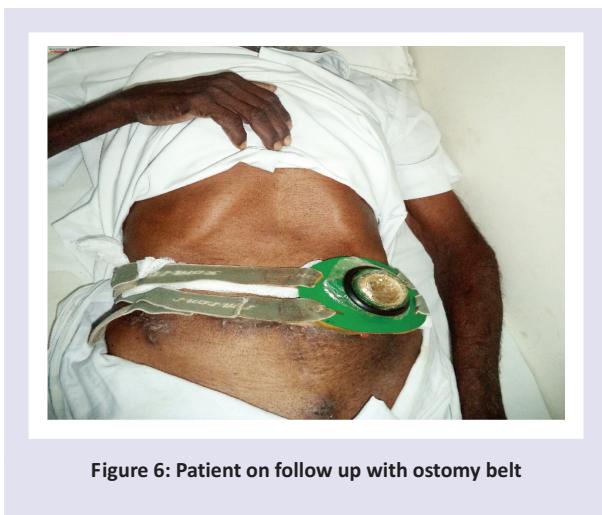


Figure 6: Patient on follow up with ostomy belt

**Differential Diagnosis:** Acute intestinal obstruction secondary to obstructed parastomal hernia, Intussusception, recurrence of malignant tumor.

### Management

Emergency exploratory laparotomy with transverse incision taken at the level of colostomy. Herniated sac along with contents dissected and separated. Sac opened small bowel delivered, constriction and gangrenous changes noted at segment of jejunum, resection anastomosis and end colostomy done. Layers of anterior abdominal wall closed along with the repair of parastomal hernia with non absorbable sutures.

### DISCUSSION

A PSH is the most frequent complication following the construction of a colostomy or an ileostomy. It has even been suggested that a certain degree of PSH is almost inevitable. 50% occur within 2 years.<sup>[1]</sup> Incidence is 4% to 48.1% after end colostomy, 30.8% after loop colostomy, 1% to 39.4% after end ileostomy, 1.8% to 28.3% after loop ileostomy). The hernia sac may contain bowel and/or omentum. PSH is classified clinically into four subtypes Subcutaneous (most common type), Interstitial, Peristomal, Intrastomal.

Patients risk factors for PSH formation include obesity, weight gain after ostomy construction, poor nutritional status, immunosuppressive drugs (eg, corticosteroids), emergency construction of a stoma, chronic or recurrent increases in abdominal pressure (chronic coughing), infection, and underlying disease such as malignancy or inflammatory bowel disease.

In our case the patient had stricture urethra, which was the cause of recurrent increase in abdominal pressure & old age causing laxity of abdominal wall.<sup>[2]</sup> Of these, the association with obesity defined as body mass index >30 kg/m<sup>2</sup>, is best supported by clinical evidence. Technical factors that might influence the risk of PSH formation include stoma placement, surgical technique for ostomy construction, and abdominal wall strength. Stoma brought out b/w the rectus muscle vs stoma lateral to the rectus muscle.<sup>[3]</sup>

Diagnosis is based on characteristic findings of a parastomal hernia on physical examination. After removal of the appliance, the patient is examined in the standing position and asked to perform the Valsalva maneuver. A hernia and the paracolostomy or paraileostomy tissue can be identified by digital exploration.<sup>[4]</sup> Diagnostic imaging to evaluate subclinical PSH in patients with a negative physical examination is unnecessary.<sup>[5]</sup>

There is a low rate of life threatening complications

associated with PSH. Urgent or emergent surgical repair because of the risk of ischemic bowel is necessary for patients with a high-grade obstruction resulting from strangulation or an irreducible hernia.<sup>[4]</sup> Delays in diagnosis of ischemic bowel can be life threatening and may result in severe electrolyte imbalance, sepsis, and death. Surgical repair is avoided in most patients with no or mild symptoms because of the high recurrence rates. While no randomized trial has been conducted, most patients with mild symptoms can be managed with an ostomy hernia belt.<sup>[3]</sup> The techniques for repair of PSH include local aponeurotic repair with or w/o mesh, relocation of the stoma, open repair with mesh, laparoscopic repair.<sup>[6]</sup>

A multitude of different approaches has been reported; there is no ideal repair and all are associated with varying recurrence rates. In an attempt to reduce the rate of PSH, the current focus is on modifying risk factors for PSH formation prior to surgery and on better primary stomal construction techniques to strengthen the abdominal wall.<sup>[7]</sup> In our case a transverse incision was taken to prevent recurrence of PSH and to strengthen the repair. Mesh was not used because of gangrenous bowel.

### CONCLUSION

Placement of mesh at the primary operation is safe. Reduces the recurrence of parastomal hernia. Prophylactic meshes were also placed in contaminated cases without wound infection. More randomized studies needed.<sup>[8]</sup>

### CONFLICT OF INTERESTS

The authors declare that they have no conflict of interests.

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