Case Report

Rectal injury attributable to enema

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Abstract

Constipation is one of the most common complaints in the general population, and is associated with substantial economic cost[1]. Postoperative ileus (POI) maybe one of the contributory factor for no passage of stool. Despite a lack of strong evidence for their clinical utility, laxatives or prokinetics have been used to treat POI in clinical practice[2].

Many a times, patients self-medicate or take over-the-counter drugs to treat constipation and sometime end up with complications requiring urgent medical consultation. Dietary modification, laxatives are some of the first line treatment of constipation. Bowel cleansing enemas are also frequently used to relieve constipation. Though, very effective, sometimes may cause serious adverse events. Some of the common side effects are anal irritation, burning sensation, diarrhea, nausea and cramps. Bowel injuries following use of bowel cleansing enema is a rare incident.

We report two cases that developed rectal injury following use of enema (glycerin 15% w/v and sodium chloride 15% w/v).

Case Presentation

Case I:

A 45 year old gentleman had undergone modified Bentall's procedure for aortic root dilatation. He complained of gradually increasing abdominal distension with no passage of stool or flatus even on fourth post operative day. His previous bowel habit was normal. He was prescribed ezivac enema installation per rectally by his treating physician. However after receiving enema, he developed continuous peri-anal pain, discharge per- anal and fresh per-rectal bleeding. As he was very shy, he did not reveal about his problems to anyone. On tenth post operative day, he went for follow up and the doctor prescribed him some antibiotics. Gradually his symptoms increased and he developed fever, severe pain during defecation and blood mixed discharge.

When we saw the patient, he had tachycardia and his blood counts showed leukocytosis. Per abdomen examination was normal and peri-anal examination revealed ulcer of 4x5 cm in the peri-anal area, posteriorly, with slough and foul smelling discharge with impending necrotizing fascitis. On proctosigmoidoscopy, ulcer was extending about 3 cm above the anal verge with no other abnormality. We did debridement and advised sitz bath. In spite of repeated debridement, his condition did not improve and, thus, he was taken for diversion colostomy.

Sitz bath and daily dressing of the wound were continued and patient was discharged on ninth day with colostomy. On two weeks follow up, his wound had healed and we are planning for colostomy closure.

Case II:

The second patient was 40 years female who had on and off lower abdominal pain associated with constipation for four months. She was prescribed laxative but the symptoms did not subside. Local pharmacy prescribed

her cleansing enema. After receiving ezivac enema, she developed continuous pain in the peri-anal region along with purulent discharge per-anal. She presented to our OPD with the complaints of three weeks duration. On examination patient was stable. On proctoscopy, purulent discharge from the rectum could be appreciated. Her sigmoidoscopy showed rectal ulcer with slough about 2x3 cm in lower rectum in left lateral wall just proximal to dentate line. It was managed with antibiotic, laxative and sitz bath. On follow up after six weeks, peri-anal wound had healed with normal sigmoidoscopy.

Discussion

Constipation is increasingly becoming an important cause of morbidity. Estimates of prevalence of chronic constipation in North America have been reported between 12-19% in most studies[3, 4]. Constipation is frequently treated with bowel cleansing enema. Glycerin enema is hyperosmotic laxative. It works by irritating the lining of the intestine and draws fluid into intestine and, thus, stimulates evacuation.

Some of the common adverse effects following use of glycerin enema are irritation, burning sensation, diarrhea, nausea and cramps. Rectal injuries following use of glycerin enema is very rare. This may be in part due to the fact that cleansing enema induced perforations are less commonly reported than are iatrogenic perforations from colonoscopy or bowel enemas to avoid litigation[5]. Enema administration can injure even healthy tissues, particularly the anterior wall of rectum. Because the rectum is insensitive to pain above dentate line, this area is easily traumatized[6]. Rectal Injury may occur due to device itself and also due to increased hydrostatic pressure following administration of enema.

Injury to the bowel should be anticipated if patient presents with one or more of the following symptoms: abdominal pain, rectal pain and bleeding. Occasionally, patient may present with features of peritonitis due to complete bowel perforation and may lead to sepsis and death. Perforation due to bowel cleansing enema has much higher mortality rate than that from a barium enema or colonoscopy, perhaps because for the latter two procedures the bowel has been medically prepared, resulting in less fecal contamination[7]. Local peri-anal and digital rectal examination may aid in the diagnosis of rectal injury. However, sigmoidoscopy/colonoscopy is the definitive for diagnosis and further management.

The cornerstone of rectal injury management is fecal diversion and is responsible for most significant decrease in mortality[8]. The goals in treatment are to stop bleeding and control sepsis. The treatment necessary for controlling sepsis classically involves the four basic elements: diversion, direct exposure, drainage, and distal rectal washout.

Cleansing enema should be used with caution if there is suspected peri-anal pathology such as fissures and hemorrhoids which makes the procedure more challenging [9]. Another aspect is to assess patient's response during the procedure and is best to stop if patient experiences severe pain or bleeding. The most effective means to treat constipation is still prevention which can be achieved by taking adequate fluids, consuming fiber rich food and diets, encouraging activity and maintaining regular bowel habit.

Although installing cleansing enema is a simple procedure, it might cause considerable social, psychological and financial impact to the patient with some serious morbidity.

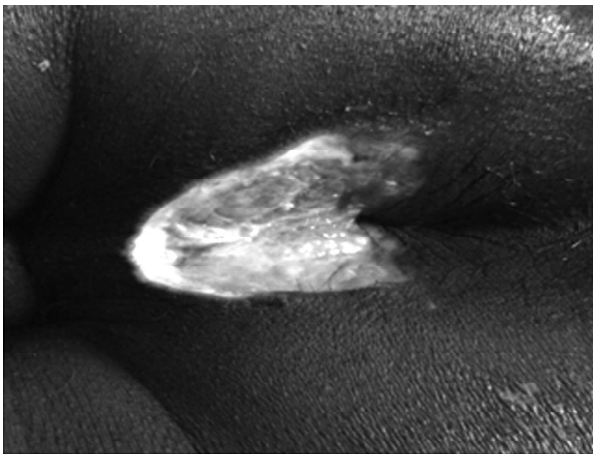

Figure 1 Peri-anal wound of Case I

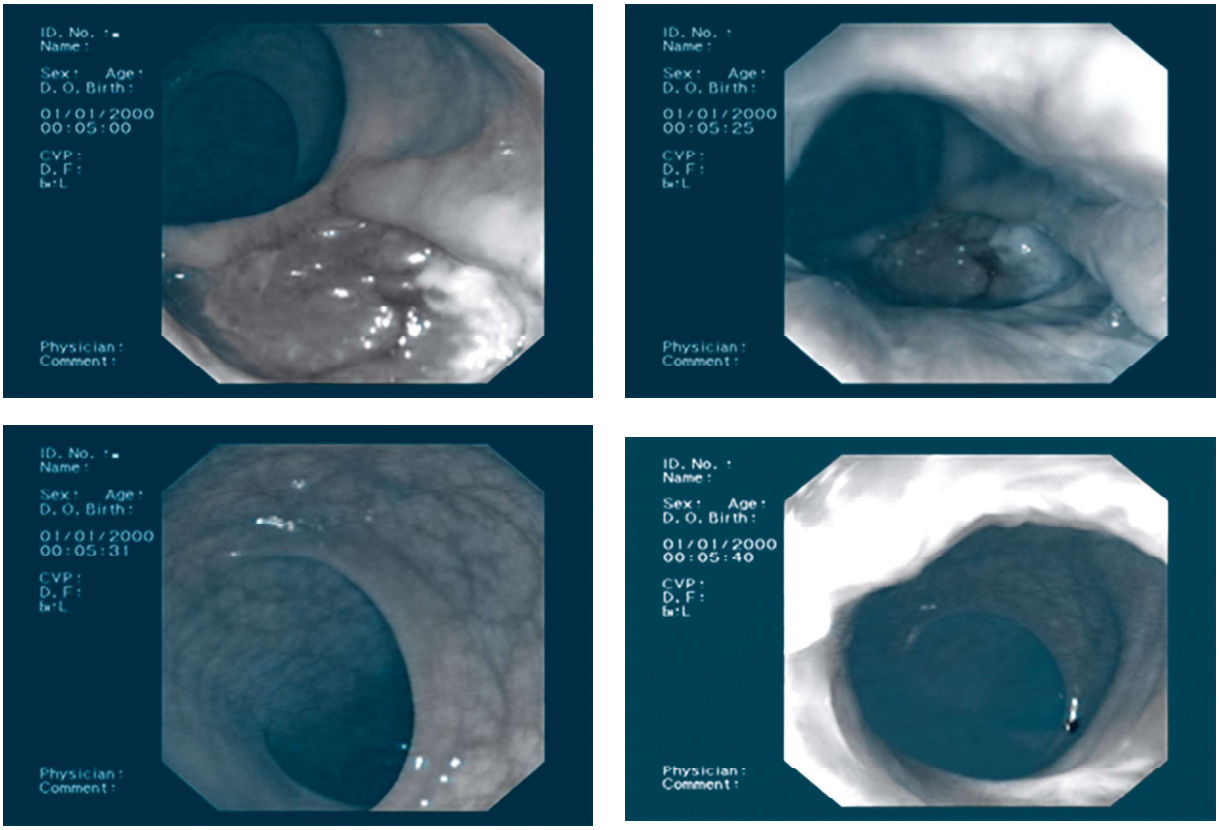

Figure 2 Sigmoidoscopy finding of Case II

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