

Case Report: Unusual Presentation of Complicated Diverticulitis at Colostomy Site

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Abstract: we report a case of a 75 years old male diagnosed on 2006 with a low rectal cancer and operated with an abdominoperineal resection procedure at that time. Since then, he was doing fine with his end colostomy until 29/07/2011, when he was presented with stoma site redness, pain, tenderness and fever with loose stool; the CT scan showed a distal colon and stoma diverticulitis and abscess lateral to stoma; the patient was managed with drainage, soft diet and antibiotic till it resolved and he was discharged home in a healthy condition.

Keywords: Diverticulitis, stoma, Colostomy site , CT scan.

INTRODUCTION AND OVERVIEW

The term diverticular disease refers to a spectrum of clinical presentations associated with the presence of diverticulae, or outpouchings on the colon [1].

A colonic diverticulum is a false diverticulum because it does not contain all layers of the wall [2].

The incidence of diverticulosis increases with age [1,3]. In Western countries, it is estimated to be present in approximately 30% of people of age 60 and 60% of people older than age 80 [1]. It also increases with the patient who is on NSAID [3-5], low fiber diet [3,6,7], smoking [3,8], opiates [3,9,10], alcohol [11,12] and immunocompromized [3,13].

Diverticulae most often arise in the sigmoid colon but may also be seen in all colonic segments [1,2]. The primary process is thought to be the erosion of the diverticular wall by increased intraluminal pressure or inspissated food particles [1,2].

Diverticulitis refers to the presence of inflammation or infection around a colonic diverticulum. The inflammation is frequently mild, and a small perforation is walled off by pericolic fat and mesentery [2]. This may lead to a localized abscess or, if adjacent organs are involved, a fistula or obstruction₂ in comparison to the poor containment results in free perforation and peritonitis [2].

CLINICAL CHARACTERISTICS

The vast majority of patients with diverticulosis are asymptomatic [1,3]. When symptomatic, 10% to 30% may eventually develop a complication warranting surgical intervention [1]. Overall, approximately 1% of all patients with diverticular disease require surgical intervention [1].

INDICATIONS FOR SURGERY

Emergency surgery is indicated in patients exhibiting signs of diffuse peritonitis, and deterioration/failure to improve with conservative therapy.

Absolute [1, 2]

- Perforation
- Obstruction
- Abscess (in patients with contraindications to surgery, percutaneous drainage may be adequate to relieve symptoms)
- Fistula
- Clinical deterioration or failure to improve with medical therapy
- Recurrent episodes
- Intractable symptoms
- Inability to exclude carcinoma

Relative [1,2]

- Symptomatic stricture
- immunosuppression
- Right sided diverticulitis
- Young patients

The most recent controversies revolve around the indications for surgery in cases of uncomplicated and complicated diverticulitis (Table 1) [14].

COMPLICATION OF THE DIVERTICULITIS

Hinchey Classification 1978 [14]

Stage I- pericolic or mesenteric abscess

Stage II- walled off pelvic abscess

Stage III- generalized purulent peritonitis

Stage IV- generalized fecal peritonitis

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Table 1. Indications for Surgery in Diverticulitis Cases

| Strictly Indicated by Available Literature | Available Literature Conflicting | Previous Indications no Longer Supported Well by Available Data |
|--|---|---|
| Diffuse peritonitis | Following successful percutaneous drainage of abscess | Uncomplicated first episode, even in patients aged <50 |
| Free perforation | Uncomplicated; second and third episodes | |
| Obstruction | | |
| Stricture | | |
| Fistula | | |
| Immunocompromized patients ≥ 4 uncomplicated episodes | | |

Stoma complication rate in literature varies widely, ranging from 10 to 70 %₃. It can be divided into early and late complications [3].

Among the early complications, the most common are peristomal skin irritation, infection, leakage, high output, bleeding and ischemia [3].

The most frequently reported late complications include dehydration, hernia, recurrence of the tumor or the disease like crohn's, nephrolithiasis and cholelithiasis [1,3].

Prarstomal abscess is a rare type of stoma complication. However, diverticulitis at stoma site with abscess formation has not yet been reported in literature.

We report a rare case presented with prarstomal abscess caused by diverticulitis at the stoma site.

CASE PRESENTATION

The Chart review of 75 years old male patient is presented here with a change in stool caliber 6 years ago. He had a past history of hypertension, diabetes mellitus, atherosclerotic disease, atrial fibrillation, coronary artery disease and was smoking.

He had a tumor at 2 cm from anal verge and he underwent an abdominoperineal resection (Mile's) procedure.

In July 2011, the patient repated colostomy site pain, fever, and chills. Upon a physical examination, the temperature of 38.5, redness and tenderness at the lateral site of the stoma, loose stool at the bag and red color stoma were seen.

WBC 11,960.

Needle aspiration done and 15 cc of greenish foul smelling pus was removed. Pigtail was inserted and broad-spectrum antibiotic was given.

CT scan shows 4×7 cm subcutaneous abscess at the lateral side of the stoma and distal colon shows diverticulitis (Figs. 1, 2, 3, 4).

On day 13, the patient again witnessed a spike temperature of 38.1 and tenderness at the same site. Incision and drainage of the abscess site was conducted, 400 cc of pus discharged and silastic drain was inserted.

The Colostomy was draining soft stool, ranging from 200 - 600 cc per day.

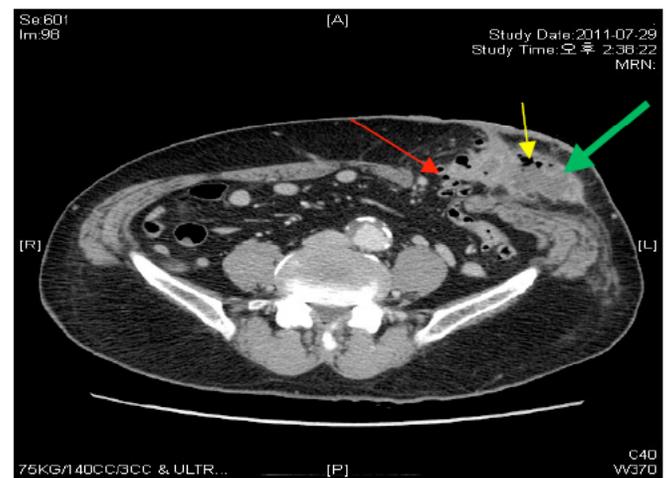


Fig. (1). Prarstomal abscess 4×7cm (green arrow), inflamed bowel segment at stoma site, multiple diverticulae (red arrow), pocket of air (yellow arrow).



Fig. (2). Prarstomal abscess (green arrow) and inflamed bowel segment at stoma site and multiple diverticula (red arrow).

After 10 days of draining and antibiotics, the patient's remaining afebrile TAZOCIN (antibiotics) was stopped and the pig tail was removed on day 12.

CT scan was obtained on the same day showing resolution of the abscess and mild distal colon inflammation (Fig. 3).

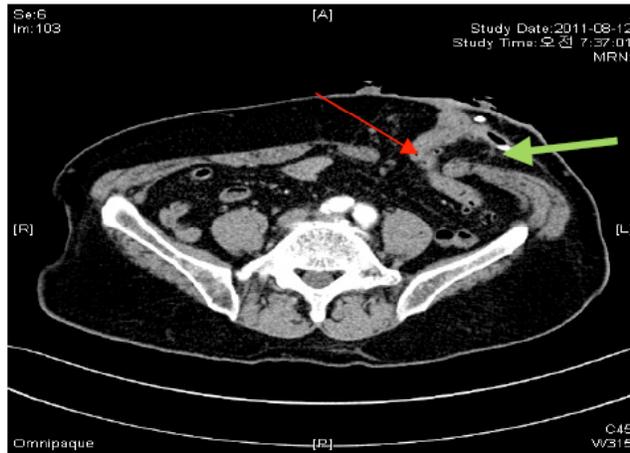


Fig. (3). Resolution of the abscess (green arrow) and mild distal colon inflammation (red arrow).

Patient was put on ciprofloxacin 200 mg Intravenous and flagyl 500 mg iv to target the diverticulitis and the abscess.

The patient was kept on soft diet and antibiotics for 13 days. Fever was subsiding and drainage of the pus was ceased.

CT scan was repeated and it shows resolved abscess and diverticulitis (Fig. 4).

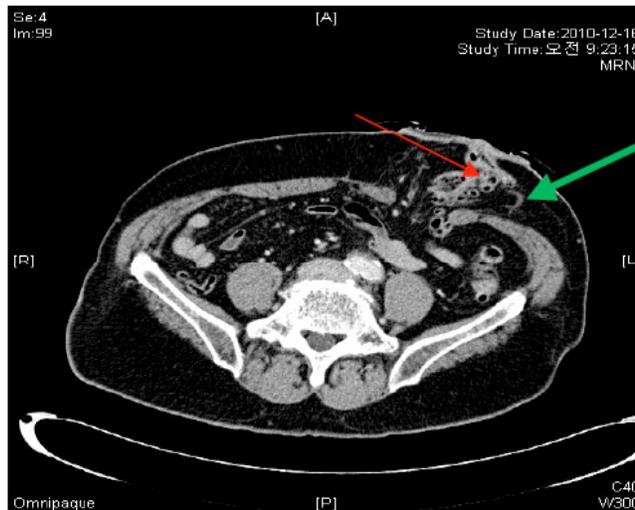


Fig. (4). Abscess resolved (green arrow) and inflammation disappeared from the diverticulae site (red arrow).

The patient was discharged home and planned for colonoscopy at a later time with repeated CT scan.

COMMENT

This patient represents a rare form of complicated diverticulitis at the stoma site after 6 years from its construction. The management was combined between surgical drainage and antibiotics. The predisposing factor for this diverticulitis could be multi factorial. Age of the patient, smoking, athero-

sclerotic disease, and constipation could contribute to the presence of diverticulitis at this site.

However, the stoma site had the least pressure area where the diverticulitis were least likely to occur, specially when there were no previous diverticula in the colon before abdominoperineal resection. So, either this diverticulum was formed before the stoma formation or it developed after stoma had been performed from the other factors that we summarized it above.

In addition to these factors, stool impaction on the diverticulum can precipitate the presence of diverticulitis and a subsequent abscess formation from microperforation.

The risk of the recurrence of diverticulitis was reported to be varied. In case of diverticulitis associated with abscess data reported by Broderick – villa and others in 2005, long term nonoperative management and several small series report higher recurrence [15].

Moreover, surgical resection after the resolution of inflammation to the stoma and refashioning another stoma are still debatable issues. Whether the recurrence will occur at the same site or not is still unknown, so a follow up is recommended.

CONFLICT OF INTEREST

None declared.

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