An uncommon abdominal fistula: Colonic diverticular disease complicated with colocutaneous fistula

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Cite this article as: *Mesina C, Dumitrescu TV, Calota F, Daniela C. An uncommon abdominal fistula: colonic diverticular disease complicated with colocutaneous fistula. Turk J Gastroenterol 2018; 29: 247-8.*

Dear Editor,

Colocutaneous fistulas are very rare, account for 1%-4% of the total number of fistulas complicating diverticular diseases, and may be caused by percutaneous drainage of diverticular abscesses without subsequent resection (1). They are more likely to occur in a patient who has undergone resection and primary anastomosis. In this letter, we report a case of a patient with a fistula connecting the sigmoid colon with left iliac fossa skin as a complication of sigmoid diverticulitis.

A 45-year-old male was admitted to our department for cutaneous fistula formation and seropurulent secretion in the fistulous opening. Initially, the patient with complicated colon diverticular disease had been admitted to another hospital 3 months previously with an abscess in the left iliac fossa, and its drainage was performed. Postoperative evolution was unfavorable with fistula formation in the scar (Figure 1). Physical examination indicated the presence of a postoperative scar with signs of inflammation and at the lower pole of the postoperative scar, a fistulous orifice with a diameter of 0.2-0.3 cm discharging the seropurulent fluid.

Fistulography of the left iliac fossa emphasized opacification of the sigmoid loop with inflammatory changes and incomplete lumen stenosis over a distance of approximately 10 cm.

Abdomen and pelvis computed tomography (CT) revealed infiltration with inflammatory aspect of subcutaneous fat in the anterior and left abdominal wall. At the lower pole of the postoperative scar, inflammatory process spread in the intrapelvic region without extending to the left iliac muscle, but with no cleavage plane toward the ileal loops. It also revealed the presence of fluid and air bubbles in the abdominal wall muscles (Figure 2).

During surgical intervention, we found inflammatory process in the left iliac fossa involving the side of the sigmoid colon, anterior abdominal wall, and greater omentum. Releasing the sigmoid loop was difficult. A fistulous orifice with a diameter of 0.4

0.5 cm, thickened wall, and irregular edges was identified. Sigmoidectomy with end-to-end colorectal anastomosis was performed as a one-step procedure.

Postoperative specimen consisted of a 25-cm sigmoid segment, which contained three perforated diverticula (when it

Figure 1. Physical examination revealed a fistulous orifice that discharged seropurulent fluid at the lower pole of the postoperative scar

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Received: ***August 17, 2017*** *Accepted:* ***October 16, 2017***

DOI: ***10.5152/tjg.2018.17379***

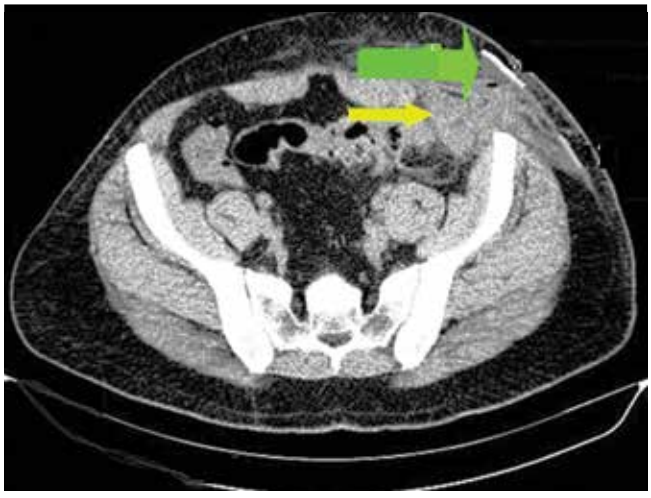

Figure 2. Abdomen and pelvis computed tomography of the patient with colocutaneous fistula: presence of fluid and air bubbles in the muscles of the abdominal wall (green arrow) and disappearance of cleavage plane of ileal loops (yellow arrow)

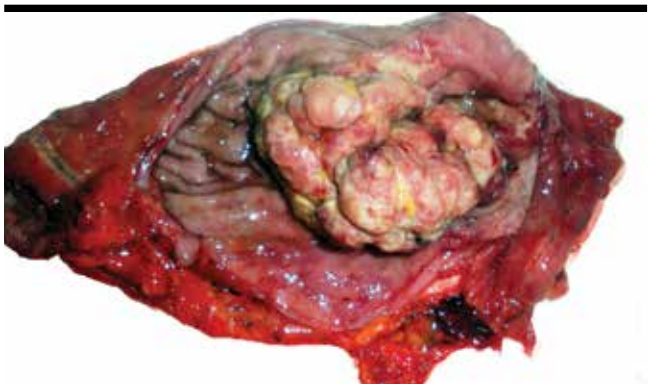

Figure 3. Section of the sigmoid colon of the patient with colocutaneous fistula contains a perforated diverticulum located on one side

was sectioned) located on one side (Figure 3). The patient underwent treatment with iv cefotaxime+metronidazole for 7 days during hospitalization and with oral ciprofloxacine + metronidazole for another 5 days after being discharged.

The postoperative course was favorable, and the patient was discharged after 7 days. During the 48-month follow-up, no recurrent diverticulitis was observed on colonoscopy and CT.

Spontaneous colocutaneous fistula is extremely rare. In the largest reported series of 93 patients, 88 had fistulas postoperatively, and fistulas spontaneously developed only in five patients (2).

Although fistulas may not appear on colonoscopy, the procedure is important for assessing the distal gastrointestinal tract for obstruction and for identifying an occasional carcinoma (3).

The American Society of Colon and Rectal Surgeons has established that elective colectomy will be required for patients with complicated colon diverticular disease; colectomy will be individualized in acute colon diverticular disease (4). Lynn et al. (5) suggested conservative management for patients with complex fistulas, including those with a history of radiation therapy and rectal, prostate, and urethral involvement.

In conclusion, patients with a manifestation of subcutaneous abscess in the left iliac fossa or flank area with previous episodes of diverticulitis should be suspected of having diverticular sigmoid perforation and abdominal wall fistula formation.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - M.C., C.F., D.T.V., D.C.; Design - M.C.; Supervision - M.C., C.F. Data Collection and/or Processing - M.C., C.F., D.T.V.; Analysis and/or Interpretation - M.C.; Literature Search - M.C., D.C.; Writing - M.C.; Critical Reviews - C.F.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

REFERENCES

1. Bahadursingh AM, Virgo KS, Kaminski DL, Longo WE. Spectrum of disease and outcome of complicated diverticular disease. Am J Surg 2003; 186: 696-701. [CrossRef]

2. Fazio VW, Church JM, Jagelman DG, et al. Colocutaneous fistulas complicating diverticulitis. Dis Colon Rectum 1987; 30: 8: 9-94. [CrossRef]

3. Meşină C, Vasile I, Paşalega M, et al. Mesenteric inflammatory veno-occlusive disease as a rare cause of acute abdomen. Rom J Morphol Embryol 2007; 48: 83-6.

4. Feingold D, Steel SR, Lee S, et al. Practice Parameters for the Treatment of Sigmoid Diverticulitis. Dis Colon Rectum. 2014; 5 784–94. [CrossRef]

5. Lynn ET, Ranasinghe NE, Dallas K B, Divino CM. Management and outcomes of colovesical fistula repair. Am S 2012; 78: 514&frt