

## Large Bowel Obstruction after Colonoscopy; A Case Report

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### ABSTRACT

Postpolypectomy bleeding and perforation are the major complications of colonoscopy. This report presents a rare case of colon obstruction immediately after colonoscopy. A 56-year-old man underwent colonoscopy because of 6 months lower abdominal pain. Colonoscopy revealed diverticulosis and multiple small sessile polyps in sigmoid colon. Biopsy samples were taken from the polyps and the procedure was continued up to cecum. Soon after the procedure, the patient complained of colicky abdominal pain accompanied by diaphoresis. In physical examination, the abdomen seemed distended and bowel sounds were high-pitched. There was no abdominal tenderness or guarding. Plain and upright abdominal radiography showed multiple colonic air-fluid levels. Immediately, the patient underwent second colonoscopy, but passage of scope through sigmoid colon (at the site of biopsies) was somewhat hard because of edema and spasm. The colonoscope proceeded gently up to cecum and decompressed the entire colon by suctioning the air that was entrapped in proximal parts. By second colonoscopy and further conservative treatments, the patient's condition improved without any surgical procedure and was discharged after 24 hours.

### KEYWORDS

Colonoscopy; Lower abdominal pain; Polyp

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### INTRODUCTION

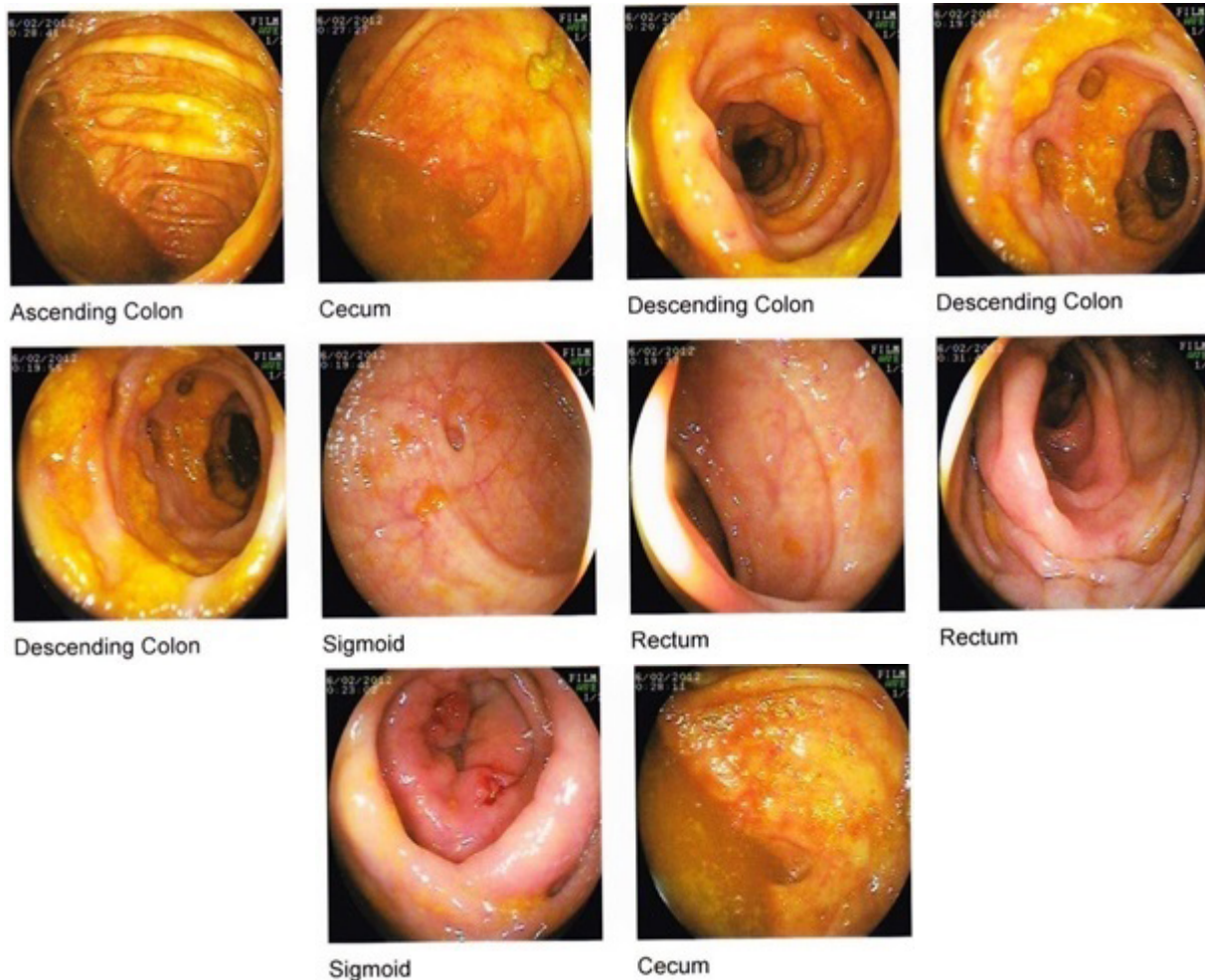
Colonoscopy is a diagnostic-therapeutic procedure being widely used. It is almost always well tolerated and the risk of serious complications is low. The major complications of colonoscopy are postcolonoscopy bleeding (0.2%) and perforation (1%).<sup>1-4</sup> The other complications are rare.<sup>1,5</sup> Herewith, we present a case of postcolonoscopy bowel obstruction.

### CASE REPORT

A 56-year-old man presented with a history of 6 months hypogastric pain. In order to investigate the cause, colonoscopy was performed using conscious sedation with intravenous midazolam (2.5 mg) and meperidine (25 mg). The rectal mucosa was normal, but there were multiple diverticula in sigmoid colon and also some small sessile polyps (<1 cm) near the junction between sigmoid and descending colon. Biopsy samples were taken and the scope was gently advanced toward cecum. There were multiple scattered diverticula up to ascending colon and another small sessile polyp was also found in cecum, from which

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**Fig. 1:** Multiple diverticula are seen from sigmoid up to ascending colon. There are some small sessile polyps in sigmoid.

other biopsy sample was taken (figure 1).

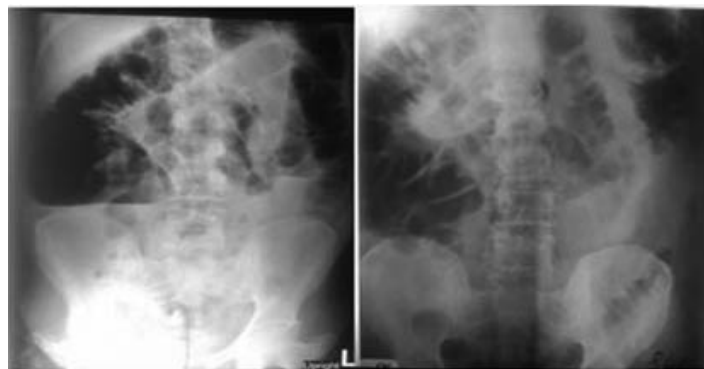
The procedure was completed without any complication during colonoscopy. About 5 minutes later, the patient complained of severe colicky abdominal pain, which recurred every 5 minutes and was accompanied by diaphoresis.

On physical examination, blood pressure was 110/80 mmHg, heart rate was 80/min and the patient had no fever. The abdomen seemed distended and bowel sounds were high-pitched. Also, the abdomen was tympanic on percussion, but there was no tenderness or guarding.

Plain abdominal radiography showed multiple colonic air-fluid levels and distention of the colon, especially in the right side (figure 2).

Since there was no subdiaphragmatic free air and

no free air between intestinal loops, the probability of perforation was ruled out. Immediately, the patient underwent second colonoscopy, but the scope could hardly pass through sigmoid colon because of spasm and edema at the site of previous polyp biopsies. The scope was gently advanced toward cecum and simultaneously decompressed the entire colon by suctioning the entrapped air. After performing the second colonoscopy, the colicky abdominal pain was relieved and abdominal distention was significantly decreased. The patient remained in hospital for close observation. Fluid and electrolytes were supplemented intravenously. Oral feeding was not permitted. Complete blood cell counts showed leukocytosis. White blood cell count was  $19 \times 10^9/L$  and hemoglobin was 15 mg/dL. Serum amylase and



**Fig. 2:** Abdominal radiography after the first colonoscopy showed distention of cecum, ascending colon, and transverse colon with a transition point in descending part indicating an obstructive cause in distal colon.

lipase levels and electrolytes were within normal ranges. After 2 hours, the patient passed flatus and after 12 hours, he passed liquid stool. The next day, white blood cell count was reduced to 1010/L and the patient had no pain or diaphoresis. He tolerated liquids and then full meals, and therefore, he was discharged during the second day.

## DISCUSSION

In recent publications, there are only few reports of postcolonoscopy small bowel obstruction,<sup>6</sup> incarcerated internal hernia,<sup>7</sup> ileus,<sup>6</sup> and volvulus of cecum,<sup>8</sup> ileum,<sup>9</sup> and sigmoid colon.<sup>10</sup> There is also a report of ileus due to pancreatitis caused by colonoscopy.<sup>11</sup>

Postcolonoscopy small intestinal obstruction usually occurs in patients with previous history of small intestinal surgery. In patients who did not respond to conservative treatments, laparotomy had mostly shown internal hernia or entrapment of small intestinal loops in adhesions.<sup>12-14</sup>

Our patient did not have previous history of intestinal surgery or any complaint referring to the probability of intestinal obstruction before colonoscopy. The occurrence of symptoms immediately after colonoscopy made coincidental causes almost impossible.

The most common cause of abdominal pain and distention after colonoscopy is ileus, which is mostly caused by sympathetic over-stimulation, excessive air insufflations, and the effects of opiates used for sedation.<sup>15</sup> But in our patient, exaggerated,

high-pitched bowel sounds, together with radiographic findings (including distention and air-fluid levels mostly confined to cecum and ascending colon), made the diagnosis of ileus impossible and led to the diagnosis of large bowel partial obstruction. The diagnosis was supported by further demonstration of narrowing at the site of polyp biopsies, which made second colonoscopy to be very hard. In our patient, the most possible explanation for sigmoid colon obstruction was the edema and spasm at the site of polyp biopsy, which was situated near multiple diverticula. Fortunately, obstruction was relieved with conservative management and did not lead to surgery.

In conclusion, large bowel obstruction is a rare complication after colonoscopy. The diagnosis should be considered in case of postcolonoscopy abdominal pain, because ignoring the pain and the progression of distention may lead to intestinal perforation or even air emboli.<sup>16-18</sup>

## CONFLICT OF INTEREST

The authors declares no conflict of interest related to this work.

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