การบิดตัวของลำไส้ใหญ่บริเวณ SPLENIC FLEXURE : รายงานผู้ป่วยในโรงพยาบาลศรีสะเกษ

SPLENIC FLEXURE VOLVULUS : A case report at Sisaket Hospital

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ABSTRACT

Among the various causes of large bowel obstruction, colonic volvulus is a rare entity. We have reported a case of splenic flexure volvulus of colon who presented at the hospital with severe abdominal pain, fever, nausea and vomiting. At the time of consultation, we found that the patient had abdominal sign of peritonitis. An abdominal radiography revealed a markedly distended colon on the left side of abdomen extending to hepatic flexure of colon. On emergency laparotomy, a gangrenous segment of splenic flexure volvulus of colon was found and resected. The resected ends were exteriorized as end colostomy and mucous fistula. The outcome was excellent.

Key words : Intestinal Obstruction, Torsion (Intestine, Large)

บทคัดย่อ

ในบรรดาสาเหตุต่าง ๆ ที่ก่อให้เกิดการอุดตันของลำไส้ใหญ่นั้น ภาวการณ์บิดงอตัวของลำไส้ใหญ่ถือเป็นสาเหตุที่พบน้อยมาก รายงานนี้เป็นกรณีผู้ป่วย Splenic Flexure Volvulus ที่มาโรงพยาบาลด้วยอาการ ปวดท้องอย่างรุนแรง ร่วมกับมีไข้ คลื่นไส้ อาเจียน จากการตรวจร่างกายพบอาการแสดงที่บ่งถึงภาวะเยื่อบุช่องท้องอักเสบ การตรวจทางรังสีวิทยาช่องท้อง พบลำไส้ใหญ่ขยายโป่งพองบริเวณด้านซ้าย ผู้ป่วยได้รับการผ่าตัดฉุกเฉิน พบมีการเน่าตายของลำไส้ใหญ่บริเวณ Splenic Flexure เนื่องจากการบิดงอตัวของลำไส้ ผู้ป่วยได้รับการรักษาโดยตัดลำไส้ใหญ่บริเวณที่เน่าตายออกและยกรูเปิดของลำไส้ใหญ่ทั้ง 2 ด้าน มาเปิดบริเวณหน้าท้อง ผลการผ่าตัดรักษาเป็นที่น่าพอใจ

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Introduction

Volvulus of the gut is defined as a twisting of an air-filled segment of bowel around its narrow mesentery, causing an obstruction of the two ends. It is a rare cause of intestinal obstruction, especially in large bowel obstruction. Colonic volvulus accounts for 1-10% of all large bowel obstruction. Splenic flexure volvulus is the least common among this group. Very few cases have been reported so far in English literature worldwide.

Case report

A 76-year Thai female was referred from community hospital due to symptoms of severe abdominal pain, nausea and vomiting for one day. Low-grade fever was recorded on admission. No any underlying disease was detected. No history of any previous abdominal surgery. Physical examination revealed tachycardia, quite restless, no pale conjunctiva and no jaundice. The abdominal signs showed markedly distended, generalized tenderness with guarding and board-like rigidity especially on left side of abdomen. The rectum was empty on examination.

The radiograph of abdomen revealed a markedly dilated large bowel loop in the left abdomen extending to the hepatic flexure of colon (Figure 1).

Laboratory finding

CBC : WBC 17,900 cells/mm^3

Neutrophil 93%, Lymphocyte 6%, Monocyte 1%

Hct 31%, Platelet 235,000 cells/mm^3

BUN 30 mg/dl, Creatinine 1.4 mg/dl

Electolytes :

Sodium 132 mEq/L, Potassium 3.4 mEq/L, Choride 95 mEq/L, Bicarbonate 24 mEq/L

The patient had undergone emergency laparotomy. In the operating theater, we found foul-smell bloody peritoneal fluid about 300 milliliters. There was dilatation of transverse colon and distended gangrene of splenic flexure and left side colon (Figure 2). The left side colon was twisted in the clockwise direction. The sigmoid colon and rectum were collapsed (Figure 3). There was no associate malrotation of the gut. The other intraabdominal organs appear normal. Resection of the gangrenous splenic flexure and the descending colon was inevitably done. Afterward, exteriorization with end colostomy and mucous fistula were performed respectively.

Result

The patient did well after surgery. She was discharged from the hospital without any complications within 7 days. Then the colostomy was closed 2 months later.

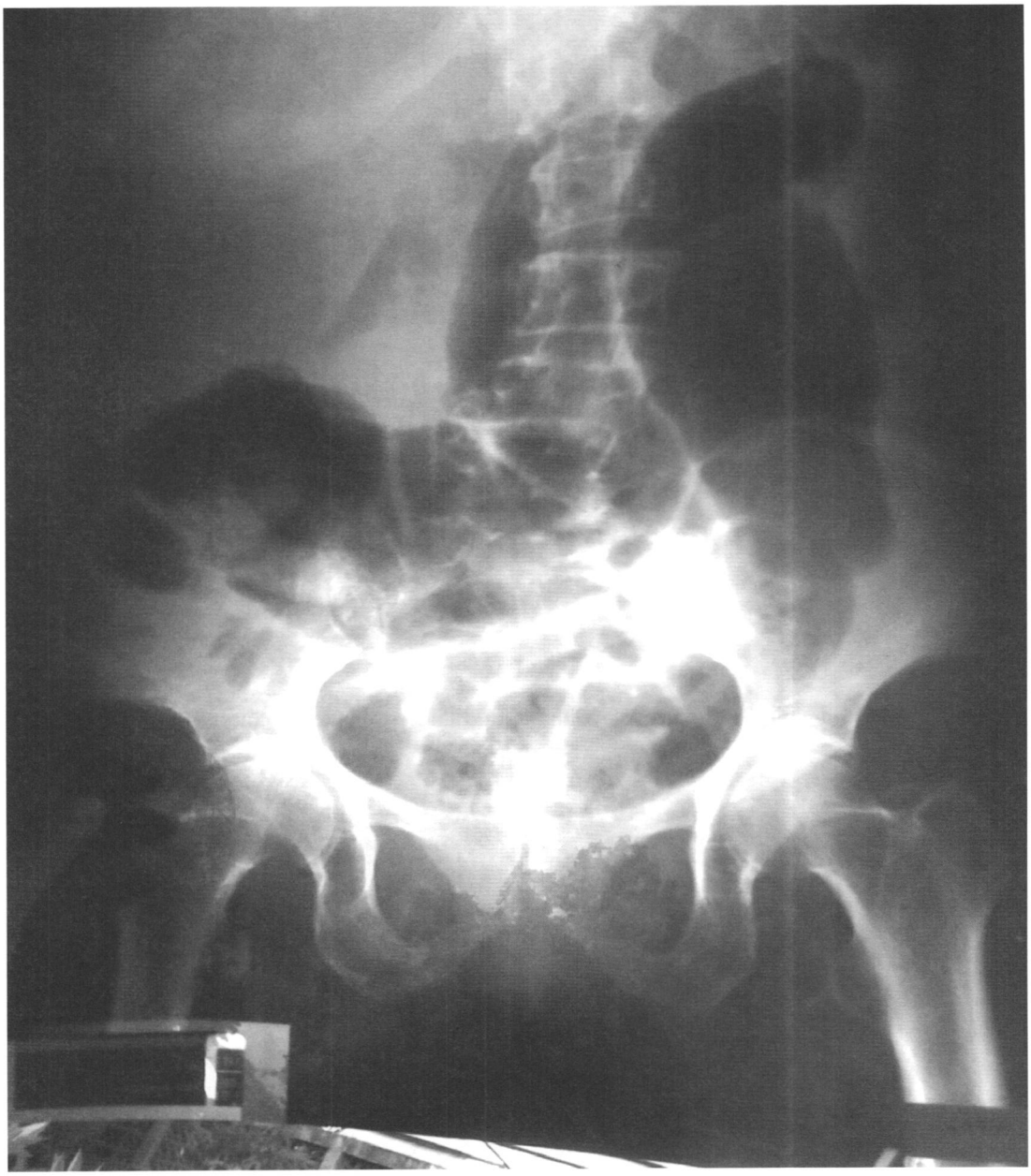

Figure 1 Dilatation of colonic segment from hepatic flexure to descending colon

Figure 2 Twisted splenic flexure of colon and dilated transverse colon.

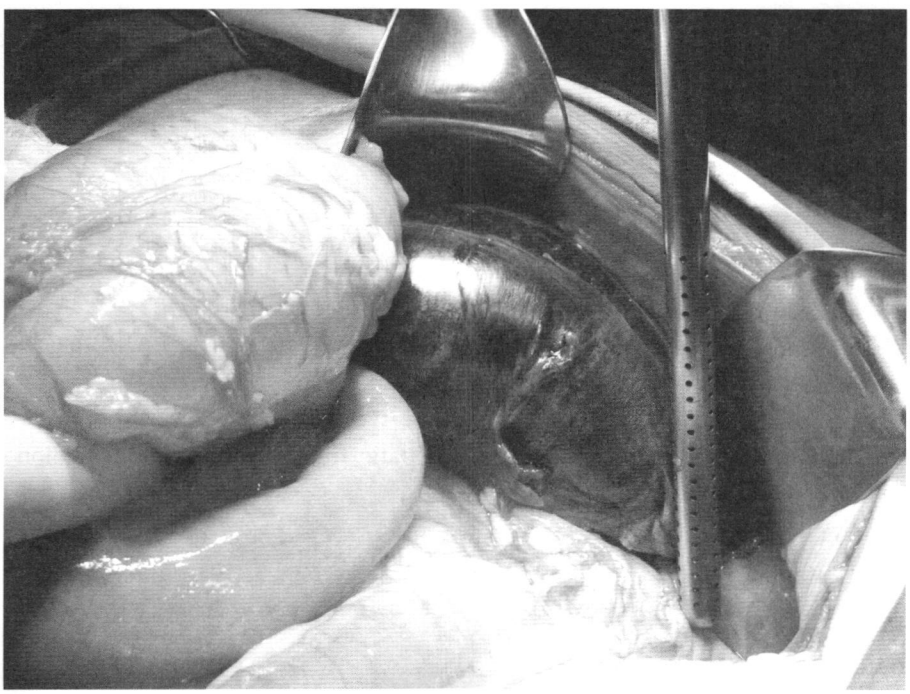

Figure 3 The tip of suction points to the empty sigmoid colon and rectum

Discussion

Colonic volvulus is a rare cause of intestinal obstruction (1-6%).[1, 2] Ballantyne et al.[3] had reported the various sites of colonic volvulus and found that the locations were at caecum 34.5% ; transverse colon 3.6% ; splenic flexure 1% : and sigmoid colon 60.9%. Statistically, the splenic flexure volvulus is the least common site of volvulus. Generally, the splenic flexure is fixed in position by three ligaments which are gastrocolic, phrenocolic and splenocolic ligaments. In some cases these all three ligaments might be absent which is resulted in torsion of the colon (but not in this case).[4, 5] The other possible contributing factors to development of colonic volvulus are thought to be high-fiber diets (as the high incidence has been reported in Russia and Iran), chronic constipation and altered colonic motility due to aging. About two-thirds of patients were related to mobilization of colon during previous abdominal operation.[6] But, Mindelzun et al.[7] reported that previous abdominal surgery did not play a role in the genesis of splenic flexure volvulus. The presenting signs and symptoms include abdominal distension, colic, nausea and vomiting. In the presence of bowel gangrene and the peritoneal sign of peritonitis, fever and leucocytosis might be found. Mindelzun et al.[7] suggested radiographic clues of the splenic flexure volvulus. The possible radiological findings are ;

- a markedly dilated, air-filled colon
- two widely separated air-fluid levels in the transverse colon and the caecum
- empty descending and sigmoid colon, and
- a characteristic beak at the anatomic splenic flexure in a barium enema examination.

Surgical correction should be performed as soon as the patient is well resuscitated. Treatment of this condition requires fixation or resection of the splenic flexure. Non-resectional colopexy can be performed in high-risk patients who are poor surgical candidates to prevent the recurrence of twisting. But, the best treatment for splenic flexure volvulus is a resectional procedure with or without primary anastomosis. If the patient does not have suspected gangrene or peritonitis, colonoscopic detorsion can be initially attempted (which is safe and effective in sigmoid volvolus[8] but no successful report in splenic flexure volvulus, in our knowledge). Then, elective colectomy with primary anastomosis after bowel preparation can be followed later. In the presence of gangrenous bowel segment or colonic perforation, primary anastomosis should be avoided and exteriorization of the colon should be done. The results have been excellent. Mortality rates range from 0 to 7 percent.[2]

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