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Splenic Flexure Volvulus Presenting with Peritonitis: Case Report and Review of the Literature.

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Abstract

Splenic flexure is the rarest site for colonic volvulus. We report a case of an 18 years old woman, admitted to our department for tender and sore abdomen, nausea and vomiting. A barium enema reported a splenic flexure volvulus. Explorative laparotomy revealed peritonitis originating from an extensive gangrene of splenic flexure of the colon, caused by 360° volvulus. The colon was encircled by omentum at its base. A resection with primary anastomosis was performed. Anatomic abnormalities and partial intestinal malrotation are the main pathogenetic causes.

Introduction

Splenic flexure volvulus represents about 1 per cent of colonic volvuluses.[1] In 1953 Glazer and Adlersberg reported the first case of splenic flexure volvulus.[2] Up to date about 40 cases have been reported.[2,8,9] This report documents a case of splenic flexure volvulus driving to an extensive gangrene and a localized peritonitis.

Case Report(s)

An 18-year-old woman presented to our emergency department complaining acute abdominal pain. She referred bowel closed to feces and gases for 4 days, associated with nausea and vomiting. Her past medical history included some diffuse abdominal pain episodes with abdominal distension, associated with nausea and vomiting occurred in the last two years.

Abdominal X-ray showed a clear distension of colon until left colonic flexure suggestive for a volvulus (Fig. 1). A barium enema was performed, showing that the volvulus affected the splenic flexure (Fig. 2). A colonoscopy showed the twist, apparently situated in the distal transverse colon. Despite repeated attempts, endoscopic decompression of the volvulus failed. Explorative laparotomy was therefore performed, revealing a clockwise 360° rotation of the splenic flexure. The left colonic flexure was distended and occupant the left upper abdominal quadrant. The splenic flexure appeared gangrenous, difficult to derotate because of partially necrotic omentum encircling the base of the volvulus. An ischemic lesion was detected after derotation requiring a left hemicolectomy. A primary latero-lateral mechanical anastomosis was performed without complication. Subsequent hospitalization was uneventful and the patient was discharged 8 days after. Up to now the patient haven't experienced any recurrence.

Discussion

The first case of a splenic flexure volvulus was reported by Glazer and Adlersberg in 1953.[2] Volvuluses are localized in the sigmoid (65-80%), but they may also involve right (15-30%) and transverse colon (2-5%). Splenic flexure volvulus is responsible for only one per cent of colonic volvuluses[1,3,15]. Predisposing factors are the congenital absence[4], or surgical excision,[5] of gastrocolic, phrenocolic, splenocolic ligament and the presence of a long mesentery. When these elements are present, the splenic flexure will have high mobility[14]. The presence of chronic constipation may contribute to distended the colon, a condition often associated with mesentery stretching[1]. The diagnosis is supported by clinical presentation, often represented by large bowel obstruction, and radiological examinations: the most important is one barium enema, that often shows the typical "bird's beak"[6]. Association of Chilaiditi syndrome and splenic flexure volvulus is described[7]. Early 14 cases reported a mortality about 14 %.[1] Latest studies show a lower mortality rate[10] depending on the location of the volvulus, presence of peritonitis and viability of the affected tract. Splenic flexure volvuluses are often diagnosed in the theatre. When the bowel is viable there are several choices: detorsion followed by elective surgery[11,12], exteriorisation of splenic flexure, resection with primary[13] or delayed anastomosis. Partial colectomy or exteriorisation of the non-viable tract is mandatory when gangrene is present. Our patient had gangrenous splenic flexure volvulus and an extremely long and mobile sigmoid colon which allowed us to perform left hemicolectomy and primary anastomosis straightforwardly. We think that anatomic anomalies and partial intestinal malrotation played, in

this case an important pathogenetic role to elicit the splenic flexure volvulus.

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Illustrations

Illustration 1

Radiograph showing dilated splenic flexure occupying the left upper abdominal quadrant.

Illustration 2

Barium enema showing the typical birds beak at splenic flexure.

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