

Idiopathic Rectosigmoid Megacolon Presenting As A Giant Palpable Abdominal Mass: Report Of A Case

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Citation

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Abstract

Megacolon is an abnormal dilatation of the colon caused by non-mechanical obstruction. The dilatation is often accompanied by a paralysis of the peristaltic movements of the bowel resulting in chronic constipation. A megacolon can be either acute or chronic. It can also be classified according to etiology. We present imaging features of a 76-year-old female with idiopathic rectosigmoid megacolon. In this unusual case massive rectosigmoid dilatation (maximum 18 cm transverse diameter) and anterior abdominal wall bulging was mimicking a giant palpable abdominal mass.

INTRODUCTION

Megacolon denotes dilatation of the colon that is not caused by mechanical obstruction. While the definition of megacolon has varied in the literature, most researchers use the measurement of greater than 12 cm for the cecum as the standard. Because the diameter of the large intestine varies, the following definitions would also be considered: greater than 6.5 cm in the rectosigmoid region and greater than 8 cm for the ascending colon. A megacolon can be either acute or chronic. It can also be classified according to etiology^(1,2). We aimed to characterise the clinical and diagnostic features of a patient with idiopathic rectosigmoid megacolon.

CASE REPORT

A 76-year-old woman admitted to surgery division of our hospital with chronic abdominal pain, abdominal distension, and constipation lasting for 10 days. During the physical examination surgeon palpated a huge mass in the left lower quadrant and the convexity of the left anterior abdominal wall was determined. A radiolucent area extending from diaphragmatic level to the minor pelvis caused by an intestinal segment distended with gas and feces was shown at the plain graphy (Fig. 1).

Figure 1

Figure 1: Scout film abdominal CT scan demonstrates a radiolucent area extending from diaphragmatic level to the minor pelvis caused by an intestinal segment distended with gas and feces (white arrows).

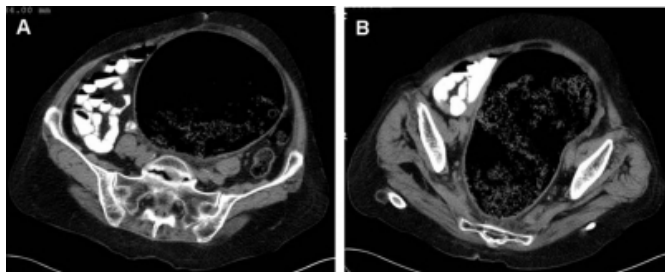


Ultrasonography (US) was performed to describe the clinical presentation. The US examination revealed a mass located in the left upper and lower quadrants with an echogenic anterior rim and dirty posterior acoustic shadowing. For

further evaluation a computed tomography (CT) scan was performed. At the CT scan the diameter of dilated sigmoid colon and rectum was measured almost 18 cm. The dilated sigmoid colon was extending to the diaphragmatic level and causing convexity at the anterior abdominal wall. At the rectosigmoid region, the colonic wall was intact but thinner than the normal. No intramural gas was seen. The dilated colonic segment content was made up of gas and feces (Fig. 2a). No obstructive pathology was determined at the proximal and distal region of the rectum (Fig. 2b).

Figure 2

Figure 2: Oral contrast-enhanced axial CT images show dilatation of almost 18 cm in the sigmoid colon. The dilated sigmoid colon has a mass effect on the anterior abdominal wall (a). Rectum is also dilated but there is no accompanying obstructive cause (b).



The appearance of the other colonic segments was normal. The laboratory findings were within the normal values. The clinical condition was defined as idiopathic megacolon. Since the patient was old only a medical treatment with laxatives and enemas was given.

DISCUSSION

Megacolon, as well as megarectum, is a descriptive term. It defines dilatation of the colon that is not caused by mechanical obstruction. While the criteria of megacolon have varied in the literature, most researchers use the measurement of greater than 12 cm for the cecum as a standard. Because the diameter of the large intestine varies, the following definitions would also be considered: greater than 6.5 cm for the rectosigmoid region and greater than 8 cm for the ascending colon (1). Megacolon can be divided into the following 3 categories: Acute megacolon (pseudo-obstruction), chronic megacolon, which includes congenital, acquired, and idiopathic causes and toxic megacolon (1,2).

Idiopathic megacolon describes an abnormality of the colon characterized by a permanent manifold extension of the bowel diameter in the absence of an identifiable cause. The leading clinical symptom is considerable abdominal suffering from intractable chronic constipation that responds

poorly to pharmacological treatment and nonsurgical interventions (3,4).

A number of different conditions cause large bowel dilatation in association with severe constipation, including Hirschsprung's disease, chronic idiopathic intestinal pseudoobstruction, and idiopathic megarectum or megacolon. The last of these conditions affects both sexes, and symptoms may start in early or late childhood or in adulthood. Patients with idiopathic megarectum have a dilated rectum but the proximal colon is usually of normal diameter. The condition frequently starts in childhood or adolescence, and fecal impaction is common. In contrast to idiopathic megarectum, patients with idiopathic megacolon usually do not experience impaction, and the symptoms often initiate in adult life (4).

In contrast to the well defined histological abnormalities in Hirschsprung's disease and chronic primary intestinal pseudo-obstruction, the pathological basis underlying both idiopathic megarectum and idiopathic megacolon is unknown. In particular, it is unknown whether there are abnormalities involving the extrinsic nerves, the enteric nerve plexuses, or the intestinal smooth muscle. Abnormalities of any of these components can cause to gut dilatation and impaired motility (4).

Clinical signs and symptoms of the idiopathic megacolon onset in adult life are constipation (major symptom), alternating diarrhea and constipation, abdominal pain, abdominal swelling, fecal soiling and palpable abdominal mass (5).

The diagnosis of the megacolon is made on the characteristic clinical, and radiological findings (6,7). Imaging modalities have a major role in diagnosis and follow-up of the patients with idiopathic megacolon. Complications that occur during follow-up can also be shown by imaging modalities. Because of the gas content of the dilated colonic segment, the role of the US is limited. At CT scan, dilated colonic segment, the wall and the lumen of this segment, obstructive causes, secondary findings due to complications such as perforation can readily be shown with a high efficacy. Colonic marker transit studies are useful to differentiate colonic inactivity from functional outlet obstruction etiologies. A colonoscopy can also be used to exclude mechanical obstructive causes. Anorectal manometry may help to differentiate acquired from congenital forms. Rectal biopsy can be necessary to make a final diagnosis (6,7).

Many patients can be managed successfully using long term laxatives, although some may require surgery (8). Drug treatment is sometimes successful, and sometimes is only needed intermittently. Surgery is clearly indicated if there is evidence of volvulus, and colectomy with ileorectal anastomosis should be considered in those with disabling symptoms. Volvulus may not be an uncommon complication of this condition (9).

In conclusion, idiopathic megacolon is rare cause abdominal pain and discomfort. It can mimic a huge abdominal mass. CT has a major role in depicting this entity, excluding obstructive causes. Its complications can be revealed by CT as well. A radiologist must be familiar with imaging findings of this pathology and its possible complications.

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