

Title:

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Authors:

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Abdominal cocoon sign: unusual cause of intestinal obstruction

Shuang Liang¹², Jiang-He Cui³, Lin-Lin Hu^{4*}

¹Department of Radiology, Hongqi Hospital affiliated to Mudanjiang Medical University, Heilongjiang 157000 ,China

²Key Laboratory for Biorheological Science and Technology of Ministry of Education, State and Local Joint Engineering Laboratory for Vascular Implants, College of Bioengineering, Chongqing University, Chongqing 400030, China

³Department of Gastroenterology, Hongqi Hospital affiliated to Mudanjiang Medical University, Heilongjiang 157000 , China

⁴Department of Radiology, Daping Hospital, Third Military Medical University, Chongqing 400042, China

***Corresponding Author:**

Daping Hospital, Third Military Medical University, Chongqing 400042, China.
mail:54348185@qq.com

A 46-year-old male patient came to our gastroenterology department with recurrent abdominal pain, distension, and delayed defecation. He complained that three bowel obstructions occurred within six months. He presented to his local emergency department and received intestinal dredging and antibiotic treatment. Computed tomography of the abdomen showed local dilation of the small bowel in the middle and lower abdomen, with contents visible in the lumen of the bowel. The bowels were surrounded by multiple fibrous cable-like envelopments and thickened mesentery, as though in a cocoon (Figure1). The relationship between the bowel and the fibro collagenous membrane can be displayed more clearly with the help of maximal intensity projection (MIP) imaging (Figure2). We got the diagnosis of abdominal cocoon sign, and then underwent laparotomy and intestinal adhesion release. During the operation, there was a 0.3 mm fibrous membrane resembling armor between the bowel and the peritoneum, with localized adhesions.

Unclear etiology and atypical clinical presentation are difficult for doctors to

identify¹. Delayed diagnosis will lead to more pain, drugs, and medical expenses. However, the specific signs of imaging still give us a lot of memorable hints. The bowel is fixed and entangled like a silkworm².

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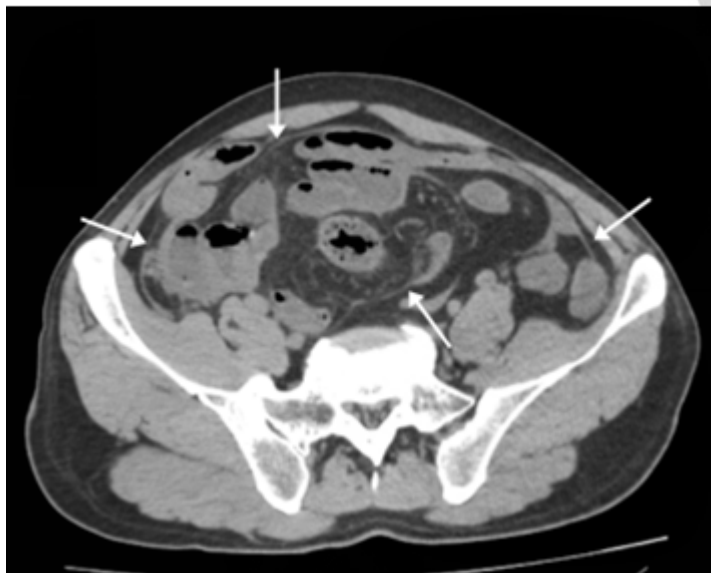


Figure1 Axial CT scan shows the affected intestines encircled by an arcuate membrane or strip (white arrow) in a cluster, with local intestinal distention, tortuosity, and fixation, and intestinal wall thickening.

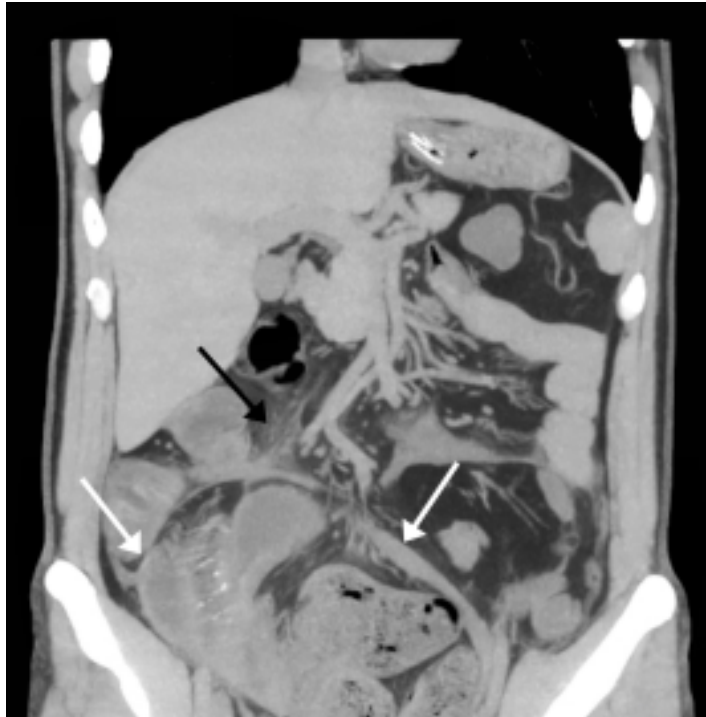


Figure2 The bowel wrap is just like a "silkworm cocoon", which is also a valuable sign for the diagnosis of abdominal cocoon disease. The fat gap around the local intestine is blurred (black arrow).