

Tuberculous abdominal cocoon

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Abdominal cocoon or sclerosing encapsulating peritonitis (SEP) is a rare cause of intestinal obstruction described mostly in young adolescent girls. Thick fibrotic peritoneum encasing the small bowel is a pathognomonic feature. Preoperative diagnosis is rare.

A 37-year-old man with hypertension and chronic renal failure presented with complaints of vomiting and abdominal pain lasting a few days. He had several similar episodes in the past with spontaneous symptomatic relief. He had a history of anorexia, weight loss, low-grade fever and gradual abdominal distension for a few months. Clinical examination revealed distended abdomen with ascites with tenderness and hyperperistaltic sounds. Laboratory studies revealed anemia, hypoalbuminemia, exudate type ascites (SAAG<1.1), significantly raised adenosine deaminase of ascitic fluid and positive PCR for tubercle bacilli. Plain radiograph of the abdomen in supine posture revealed dilated small bowel loops in the mid-abdominal region.

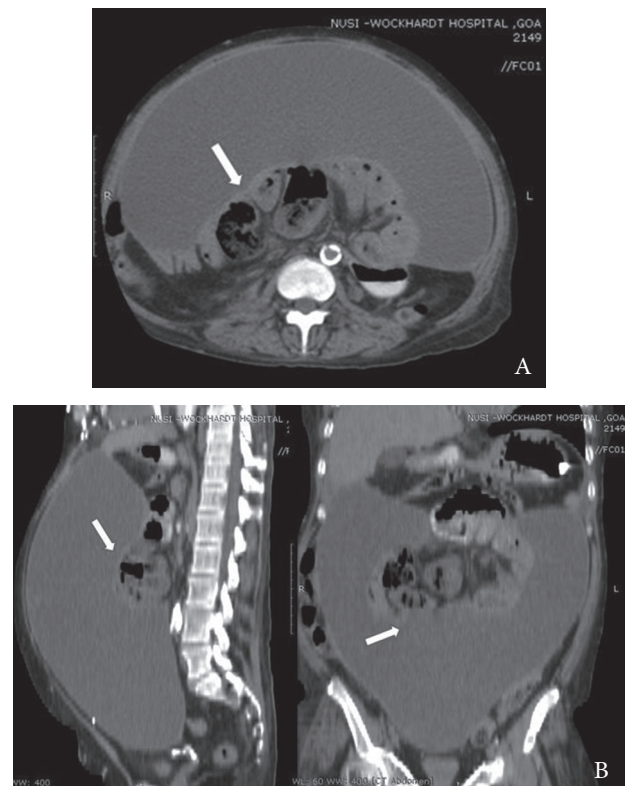


Figure 1 Contrast-enhanced computed tomography scan of the abdomen demonstrating clustered small bowel loops encapsulated within a thick membrane-like sac in the mid-abdomen with moderate ascites. (A) Horizontal section (B) Sagittal and coronal sections

Abdominal ultrasonography revealed clustering of the small bowel loops in the mid-abdominal region with ascites. Contrast-enhanced computed tomography (CT) of the abdomen was performed. It revealed clustered small bowel loops encapsulated within a thick membrane-like sac in the mid-abdomen with dilated stomach and duodenum with moderate ascites (Fig. 1 A, B). Patient was treated conservatively and started on antitubercular medications and is doing well so far on follow up with few episodes of subacute intestinal obstruction settling spontaneously.

Intestinal obstruction secondary to abdominal cocoon or *SEP* is an infrequent clinical entity [1]. The term "abdominal cocoon" was first applied by Foo *et al* in 1978 [2]. The primary or idiopathic abdominal cocoon is rare but abdominal cocoon secondary to tuberculosis is not uncommon; especially in the tropical and subtropical third world countries like India where tuberculosis tends to be endemic. Prior to the era of CT imaging definitive diagnosis was usually made during surgery. In this case we were able to suspect the diagnosis preoperatively based on CT abdomen findings. Classic CT finding include small-bowel loops congregated in a single area or the concentration of small bowel loops in the mid-abdomen encased by a soft-tissue-density envelope [3]. Other CT findings include the presence of ascites or loculated fluid collections (less common), peritoneal thickening and enhancement, peritoneal calcifications (patients with end-stage kidney disease), thickening of bowel wall and tethering or fixation of bowel

loops [4]. Surgery (membrane dissection and extensive adhesiolysis) is the treatment of choice. Once the diagnosis of tuberculosis is established these patients need to be put on standard anti-tubercular treatment.

References

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Conflict of Interest: None

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