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Image of Interest

Computed tomography angiography (CTA) findings of lupus-associated intestinal vasculitis

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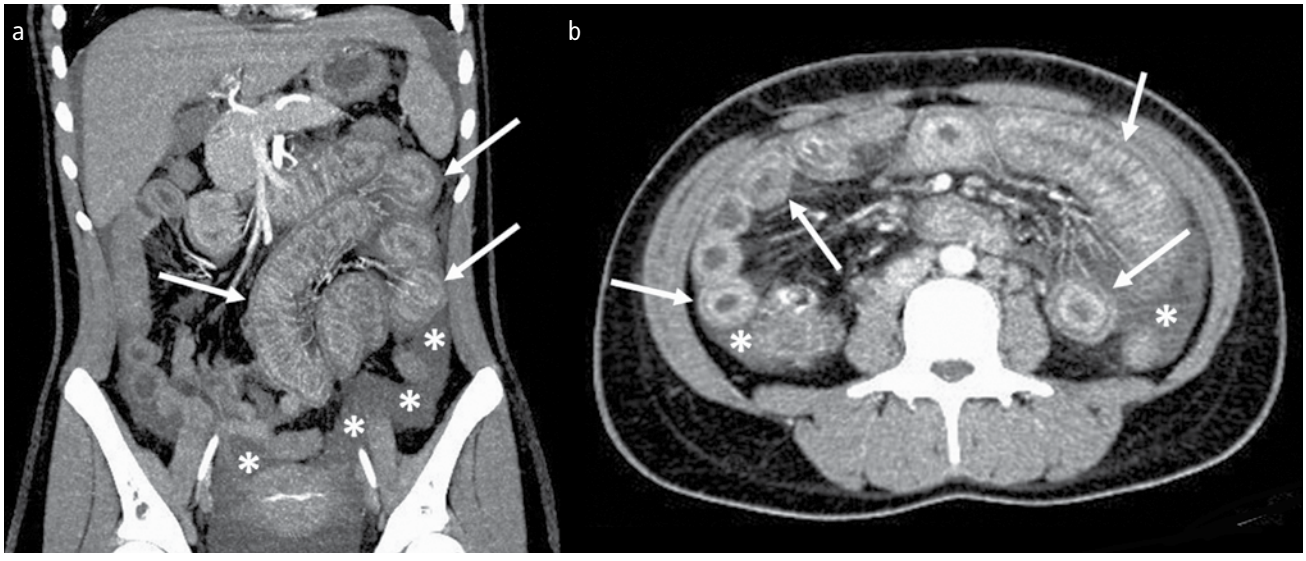

Figure 1. a, b. Coronal reconstruction CT image demonstrates diffuse small bowel wall edema and mucosal enhancement giving a "target" sign (white arrows). Ascites is also observed in the abdominal cavity (asterisks) (a), Axial CT image shows small bowel edema and a clear "target" sign due to mucosal enhancement (white arrows). Ascites is revealed adjacent to the bowel loops (asterisks) (b)

Main text

A 31-year-old female was admitted to our institution with abdominal discomfort and right lower quadrant pain started 1 month ago. A slight defense was observed during physical examination, but no sign of rebound was detected. Her rectal examination and bowel sounds were within the normal limits. In her detailed history, she described systemic lupus erythematosus (SLE) anamnesis managed with a maintenance therapy of low-dose corticosteroids. Complete blood count, laboratory test, and stool sample analysis were within the normal limits, except for mildly decreased albumin levels (3.61 g/dL), increased C-reactive protein levels (18.4 mg/L), and elevated anti-double-stranded DNA antibody levels. Ultrasound examination revealed small bowel wall edema, splenomegaly, and diffuse ascites in the abdomen. Upon detection of small bower wall edema and given the history SLE, the patient underwent computed tomography angiography (CTA) with a suspected diagnosis of mesenteric ischemia due to the vasculitic course of the disease. The visceral branches of the abdominal aorta and mesenteric and portal venous vessels were found to be intact; however, diffuse small bowel edema and mucosal enhancement giving a "target" sign were observed on CTA (Figure 1a, b). In addition to small bowel edema, considerable ascites was seen in the abdominal cavity (Figure 1a, b). Considering the history, laboratory test, and CTA findings, a diagnosis of lupus-associated intestinal vasculitis (LAIV) was made. The patient was referred to the internal medicine department and high-dose methylprednisolone (2 mg/kg body weight/day) was started, with the dose gradually tapered over a 2-week period. After medical treatment, her symptoms resolved progressively and control ultrasonographic evaluation showed absence of small bowel edema and ascites.

Globally, LAIV is seen up to 0.2%-9.7% of patients diagnosed with SLE (1). The manifestation of LAIV varies from mild to severe symptoms. Nonspecific abdominal pain, abdominal fullness, and diarrhea represent the mild symptoms. On the other hand, gastrointestinal bleeding and intestinal perforation due to necrosis are the severe symptoms that may result in acute surgical abdomen. Accurate and prompt diagnosis of

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LAIV is critical for reducing unnecessary surgical procedures. Because the laboratory and clinical symptoms are sometimes nonspecific, the diagnosis mainly depends on computed tomography (CT), which reveals not only the bowel wall but also the mesenteric vasculature successfully. Common CT findings that can be seen in LAIV include focal or diffuse bowel wall thickening, bowel wall contrast enhancement giving a "target" sign, stenosis or engorgement of mesenteric vessels, called "the comb sign," and ascites (2). Immediate anti-inflammatory immunosuppressive therapy is the key to the management of LAIV (3).

Informed Consent: Written informed consent was obtained from patient who participated in this study.

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