

Sclerosing Mesenteritis: “Fat Ring Sign”

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A 72-year-old man with hypertension and benign prostatic hyperplasia presented to the gastroenterology department with a several-year history of abdominal discomfort. He was afebrile, and his abdomen was soft without tenderness. Laboratory testing showed a leukocyte count of 8,900 per microliter (reference range, 3,500 to 8,500) and a serum C-reactive protein level of 0.53 mg per deciliter (reference range, 0.0 to 0.3). Computed tomography (CT) revealed a mesenteric mass with high attenuation and hypoattenuated fat surrounding the mesenteric vessels (so-called “fat ring sign”) (Fig. 1). Esophagogastroduodenoscopy and colonoscopy showed no identifiable causes of inflammation. Malignancies, IgG4-related diseases, and infections were excluded by further examination. Sclerosing mesenteritis was diagnosed by the abovementioned findings. Conservative therapy was initiated; thus, he has had no exacerbation for more than two years.

Sclerosing mesenteritis is a rare benign disease characterized by chronic inflammation involving the mesentery.^{1,2} The etiology is unknown.^{1,2} Sclerosing mesenteritis may be asymptomatic and found incidentally on imaging, or associated with non-specific symptoms including abdominal pain, fever, nausea, vomiting, change in bowel habits.^{1,2} In addition, sclerosing mesenteritis can occasionally result from mass effect on gastrointestinal lumen, mesenteric vasculature, or lymphatics (e.g., bowel obstruction, ischemia, chylous ascites).¹

The differential diagnosis of sclerosing mesenteritis includes any condition associated with mesenteric edema, hemorrhage, and infiltration with inflammatory or neoplastic cells such as trauma, ischemia, cancer, autoimmune diseases, and infections.¹ CT is useful for the diagnosis of sclerosing mesenteritis; particularly, “fat ring sign” which refers to a preserving rim of fat around a mesenteric vessel is an important diagnostic finding.^{1,2} If the mesenteric lymph node is ≥ 10 mm, malignancy must be excluded through biopsy or positron-emission tomography-CT.¹ There is extremely limited evidence for management of sclerosing mesenteritis.¹ Observation is recommended for asymptomatic or mildly symptomatic patients.¹

CONFLICT OF INTEREST STATEMENT

None declared.

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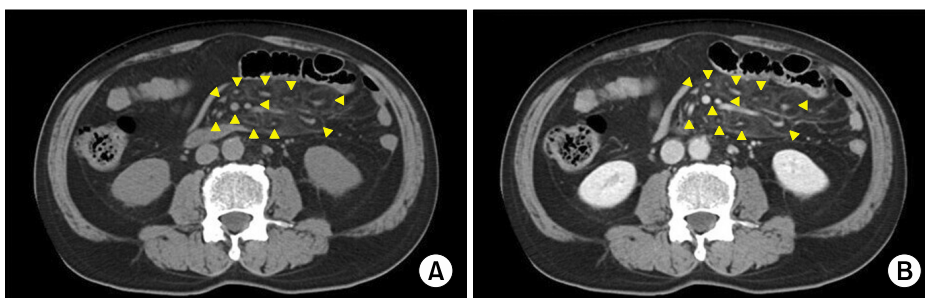


FIG. 1. Plain and contrast-enhanced abdominal computed tomography (CT) revealing a mesenteric mass with high attenuation and hypoattenuated fat surrounding the mesenteric vessels, the so-called “fat ring sign” (arrowheads) (A: plain CT, B: contrast-enhanced CT).

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