

Idiopathic mesenteric phlebosclerosis associated with herbal drugs presenting with asymptomatic fecal occult blood

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We report a case of idiopathic mesenteric phlebosclerosis (IMP) presenting with asymptomatic fecal occult blood. This case underscores the importance of recognizing IMP as a cause of asymptomatic fecal occult blood in countries where herbal drugs are used often.

A 77-year-old man visited our hospital for evaluation of asymptomatic fecal occult blood that was found during his annual public health checkup. He had undergone left total hip arthroplasty and was receiving treatment for hypertension, nonvalvular atrial fibrillation, and erythromelalgia. He had been simultaneously prescribed multiple Chinese herbal drugs that were manufactured by Tsumura & Co., Japan, including Oren-gedoku-to (TJ-15), Kami-shoyo-san (TJ-24), Keishika-ryukotsu-borei-to (TJ-26), and Bakumondo-to (TJ-29), for various symptoms such as pain and paresthesia of the extremities due to erythromelalgia and chronic cough.

Colonoscopy showed dark-purple, edematous mucosa and dilated veins at the ascending colon, which are typical findings of IMP (Figure 1). A computed tomography scan showed multiple linear calcifications distributed on the right-side mesenteric veins (Figure 2, red circles). In light of the typical combination of endoscopic and radiological findings, we diagnosed the patient with IMP and advised him to immediately discontinue the herbal drugs. Despite the discontinuation of the causative agents, the patient developed anemia due to a colonic ulcer associated with chronic ischemia of the right side of the colon three months after the IMP diagnosis. He was conservatively treated and scheduled for regular endoscopic and radiological observation.

IMP is a rare syndrome caused by chronic ischemic changes of the colon due to calcification of the veins of the colon and adjacent

peritoneum.¹ Most cases have been reported from Asian countries, especially Japan and Taiwan, which have strong associations with the use of herbal drugs.¹ Previous studies clarified that herbal drugs containing gardenia fruit (Sanshishi) are one of the major causes of IMP. The currently assumed etiology of IMP is as follows: Geniposide, a component of gardenia fruit, is hydrolyzed to genipin by bacteria

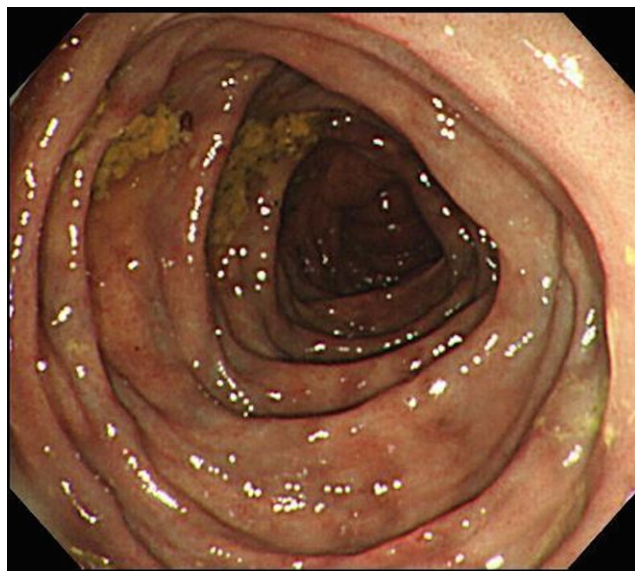


FIGURE 1 Colonoscopy of the patient showed dark-purple, edematous mucosa and dilated veins at the ascending colon, which are typical findings of idiopathic mesenteric phlebosclerosis

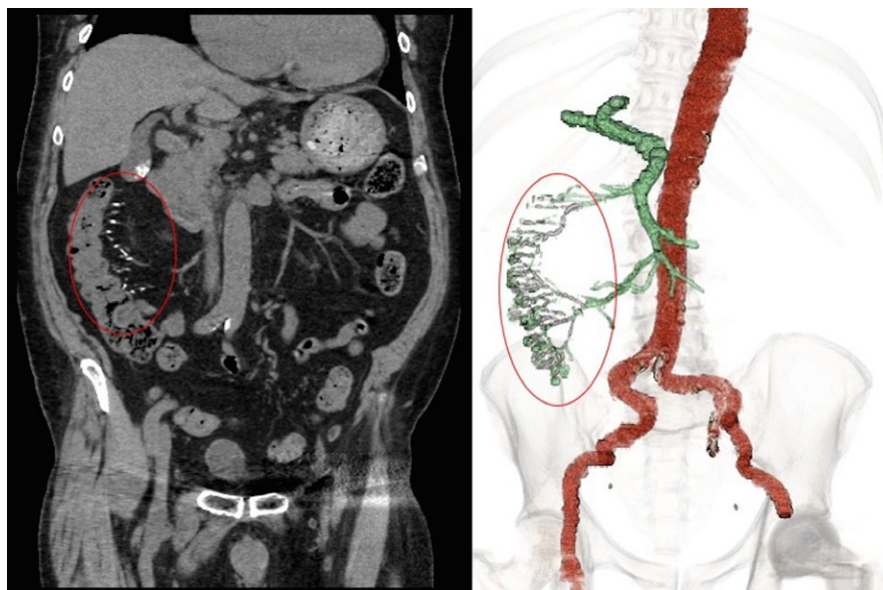


FIGURE 2 A computed tomography scan including a reconstructed image showed multiple linear calcifications distributed on the right-side mesenteric veins (red circles)

in the intestine. The absorbed genipin subsequently reacts with proteins in the mesenteric venous plasma and causes pigmentation and sclerosis of the mesenteric vein before it is degenerated at the liver.²

Most cases manifest with gastrointestinal symptoms, including abdominal pain, bloating, nausea/vomiting, or obstruction. Up to 20% of cases, however, are asymptomatic with fecal occult blood found incidentally.^{2,3}

Management of IMP depends on the symptoms. Asymptomatic cases only require careful observation. Cases with severe complications such as colonic obstruction or perforation, however, require emergent operation. Both the symptoms and the histological changes are reported to improve with the discontinuation of drugs containing gardenia fruit. Hence, the early detection and early discontinuation of the causative agent are important.^{1,2}

Fecal occult blood testing is commonly used by primary care physicians and at public health checkups as screening for colorectal cancer. IMP is not well known to primary care physicians as a cause of fecal occult blood, however. An understanding of this is important for both gastroenterologists and primary care physicians because a history of herbal drug use is key to the diagnosis of IMP, together with typical colonoscopic and radiological findings. The prevention of symptomatic IMP by primary care physicians through appropriate patient instruction regarding the discontinuation of the problematic medicine is also important.

CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

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