



Heyttu

Annals of Chinese Medicine

Volume 2021, Article ID 000007, 5 Pages

Category: Review

DOI: <https://doi.org/10.46949/acm.2021.2.1>

Idiopathic mesenteric phlebosclerosis (IMP) with sepsis and death: a case study

Xue Lei Zhou^{1*}, Xue Mei Wan¹, Jing Chen¹, Zi Yan Xie²

¹Hospital of Chengdu University of Traditional Chinese Medicine, Chengdu, 610072, China

²Chengdu University of Traditional Chinese Medicine, Chengdu, 611130, China

* Correspondence should be addressed to Xue Lei Zhou zhouxuelei@cducm.edu.cn.

Received: October 1, 2021, Revised October: 15, 2021, Published: October 25, 2021

Academic Editor: Dr. Hui Zhang

Cite: Zhou XL, Wan XM, Chen J, Xie ZY. Idiopathic mesenteric phlebosclerosis (IMP) with sepsis and death: a case study. *Ann Chin Med*, 2021, 2021(2):000007.

Copyright © 2021 Zhou et al. This is an open access article (CC BY-NC-ND 4.0), which permits copy and redistribute the original material without derivatives in any medium or form at any medium for non-commercial purposes, provided the original work is properly cited.

Abstract

Idiopathic mesenteric phlebosclerosis (IMP) is a rare clinical manifestation of ischemic enteropathy. There are no specific manifestations in the early stages. Digestive symptoms only present in the advanced stage. Diagnosis relies on extensive calcification of the mesenteric venule and extensive intestinal wall thickening via computed tomography (CT) scanning. A 50 years old Chinese woman who had taken herbal medicine for three years was diagnosed with IMP. All treatment after admission was in vain and she died 30 days thereafter. Therefore, when a patient with long-term oral intake of herbal medicine, which contains geniposide, presents with unknown ischemia, abdominal pain, mucinous stools, bloody stools, attention should be paid to screen IMP.

Keywords

Idiopathic mesenteric phlebosclerosis; Ischemic bowel disease; Mesenteric vein; Venous sclerosis; Herbal medicine

Introduction

Idiopathic mesenteric phlebosclerosis (IMP) is a rare clinical disease characterized by extensive sclerosis of the mesenteric vein. IMP has been only found in the Asian population who has taken herbal medicine for a long period^[1]. Its etiology and pathogenesis are still unclear. Diagnosis is mainly determined based on imaging results. To our knowledge, there are only approximately 70 cases have been reported in the world. IMP was first reported by Hiramatsu^[2] in 1991 and officially named by Iwashita^[3] in 2003. This paper reported a patient with IMP who had taken herbal medicine for three years.

Case

Mrs. Zhou, 50-year-old female, was admitted to the Department of Gastroenterology, Hospital of Chengdu University of Traditional Chinese Medicine on December 5, 2019, because of suffered bloody mucous stools, abdominal distension, fatigue, and tight breath. When she came to the hospital, she presented with fever, nausea, burning sensation in the upper abdomen, abdominal distension, and significantly reduced bowel sounds. Before admission, she had been treated with a herbal medicine prescription for 3 years. The herbal formula consisted of Di Gu Pi (*Cortex Lycii*) 15g, Lian Qiao (*Fructus Forsythiae*) 10g, Fu Ling (*Poria*) 10g, Gua Lou (*Fructus Trichosanthis*) 10g, Xing Ren (*Semen Armeniacae*) 10g, Dong Gua Zi (*Semen Benincasae*) 15g, Zhi Qiao (*Fructus Aurantii*) 10g, Ju Hua (*Flos Chrysanthemi*) 10g, Jin Yin Hua (*Flos Lonicerae*) 10g, Zhi Zi (*Fructus Gardeniae*) 10g, Mai Men Dong (*Radix Ophiopogonis*), Huo Ma Ren (*Semen Cannabis*) 15g, Jie Geng (*Platycodon Grandiflorum*) 10g, Ci Ji Li

(*Fructus Tribuli*) 15g, Xuan Shen (*Radix Scrophulariae*) 15g, Sang Ye (*Folium Mori*) 10g, and Jin Qian Cao (*Herba Lysimachiae*) 20g.

Laboratory tests showed iron deficiency anemia with hemoglobin 63 g/L, white blood cells $26.8 \times 10^9/L$. Blood culture examination indicated sepsis. After admission, she was first treated with cefoperazone for 7 days, but it was in vain. Then meropenem was used in the following 2 weeks, which did not work. Abdominal contrast-enhanced (CT) (Figure 1, A) and three-dimensional imaging (Figure 1, B) examination during this period showed that the colon walls of the ascending colon, transverse colon, descending colon, and extensively thickened sigmoid colon with unclear margins. No intestinal stenosis was observed, and the blood vessels under the intestinal wall were extensively calcified. Therefore, idiopathic mesenteric phlebosclerosis enteritis was considered.

Because the patient could not take oral enterococcal drugs, it was only possible to stop drinking and fast for 7 days. A complete colonoscopy was performed after repeated enemas, which showed colonic mucosa extensive cyanosis and edema. Extensive purulent secretions were observed in the colonic mucosa. Some of the colonic mucosa was pitted and purulent (Figure 2).

The results of the colonic mucosal biopsy showed that the colonic mucosa had chronic inflammation, with some colonic mucosal epithelial tissue missing, and formation of inflammatory granulation tissue, which was consistent with ulcerative changes (Figure 3).

After treatment, the patient's illness recurred. Finally, she developed septic shock

and died 30 days after admission to the hospital.

Discussion

IMP, a rare type of ischemic bowel disease, has no specific clinical manifestations. The definition is closely related to the progression of the disease. In the early stage, a patient may not have any symptoms. In the advanced stage, intestinal ischemia, abdominal pain, abdominal distension, nausea, vomiting, mucinous stools, and bloody stools appear. The specific CT findings were thickening of the intestinal wall and extensive cyanosis. Infected patients may have ulcers, erosion, and bleeding. Almost all reported IMP patients have taken herbal medicine for a long time, but varieties and dosages are hardly seen. Hiramatsu et al. reported cases of IMP whose herbal medicine contained gardenoside^[4]. In this case, 6 herbs in her previous prescription i.e. Lian Qiao (*Fructus Forsythia*), Gua Lou (*Fructus Trichosanthis*), Zhi Qiao (*Fructus Aurantii*), Jie Geng (*Platycodon Platycodon*), Xuan Shen (*Radix Scrophulariae*), and Ci Ji Li (*Fructus Tribuli*) contain gardenoside. We speculated that IMP, in this case, might be attributed to long-term (3 years) intake of herbal medicine.

Although it is pretty rare to use an herbal medicine prescription for 3 years, it is always important to evaluate herbal medicine's side-effect. For example, when a patient with long-term oral intake of herbal medicine, which contains geniposide, presents with unknown ischemia, abdominal pain, mucinous

stools, and bloody stools, attention should be paid to screen IMP.

Funds

of TCM Administration of Sichuan Province, No.2020JC0047.

Conflicts of Interest

The authors declare that they have no completing interest.

References

- [1] Sze SF, Lam PW, Lam JT, Chung CC, Lee YT. Idiopathic mesenteric phlebosclerosis: A rare cause of chronic diarrhea. *JGH Open*, 2020 4(4):769-70.
- [2] Takahashi J, Miyakura Y, Maemoto R, Takayama N, Fukuda R, Tamaki S, et al. Idiopathic mesenteric phlebosclerosis treated with laparoscopic subtotal colectomy: A case report. *Asian J Endosc Surg*, 2020, 13(2):223-226.
- [3] Iwashita A, Yao T, Schlemper RJ, Kuwano Y, Yao T, Lida M, et al. Mesenteric phlebosclerosis: A new disease entity causing ischemic colitis. *Dis Colon Rectum*, 2003, 46(2):209-220.
- [4] Hiramatsu K, Sakata H, Horita Y, Orita N, Kida A, Mizukami A, et al. Mesenteric phlebosclerosis associated with long-term oral intake of geniposide, an ingredient of herbal medicine. *Aliment Pharmacol Ther*, 2012, 36(6):575-586.

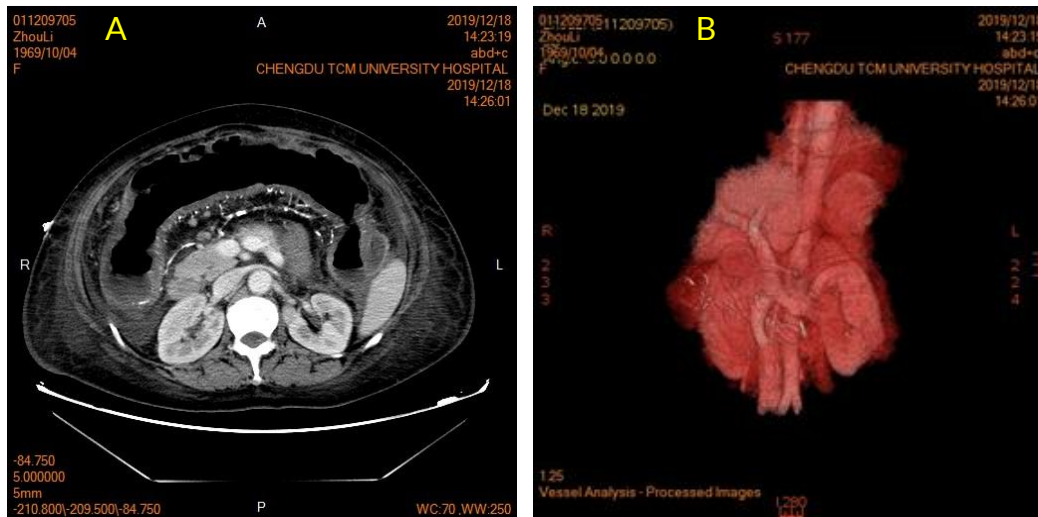


Figure 1: Abdominal enhanced CT (A) and three-dimensional imaging (B) showed extensive intestinal dilatation, extensive intestinal wall thickening, and extensive calcification of subintestinal blood vessels.



Figure 2: Colonic mucosa showed extensive cyanosis and edema, extensive purulent secretions were observed in the colonic mucosa, and some of the colonic mucosa was pitting and purulent with bleeding.

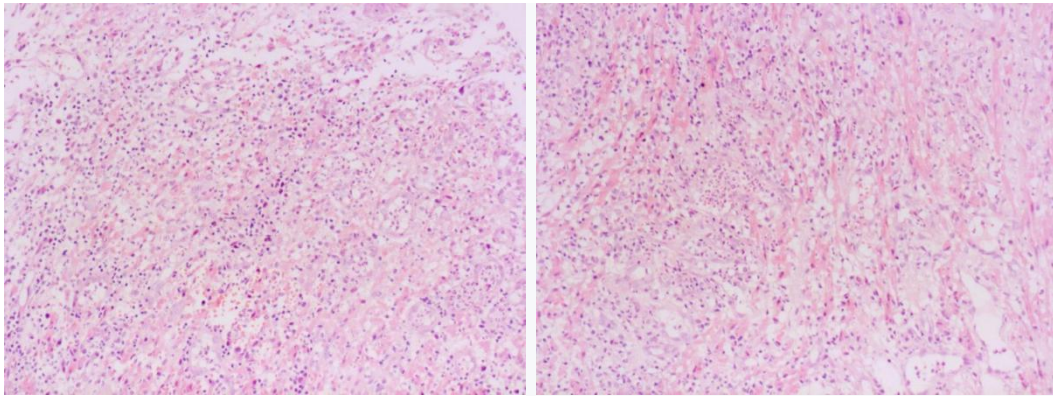


Figure 3: Some areas of the colonic mucosa were lost and inflammatory granulation tissue was formed (HE dyed 10x).