

Ménétrier disease manifested by polyposis and involved in both the small bowel and entire colon

A Case Report

Qiang Ding, MD, Panpan Lu, MM, Shuping Ding, MM, Yuhui Fan, MM, Wei Yan, MD, Ying Wang, MD, Dean Tian, MD, Yujia Xia, MD*, Mei Liu, MD*

Abstract

Introduction: Ménétrier disease (MD) is rare that is involved in both the small bowel and entire colon.

The main symptoms and the important clinical findings: We describe a case of a 76-year-old male patient whose clinical presentations include intermittent diarrhea, epigastric pain, nausea, vomiting, asitia, and weight loss. An endoscopy was performed showing a large number of irregular forms and different sizes of polypoid lesions in the gastrointestinal tract, which is rare for MD.

The main diagnoses, therapeutics interventions, and outcomes: Herein, this case was diagnosed as MD, mainly dependent on endoscopic evaluation, typical clinical symptoms, and histopathological examination of biopsy. As this patient was also infected with *Helicobacter pylori*, the eradication of *H pylori* was administered. Meanwhile, a high-protein diet was enjoined, the aforementioned patient's symptoms were alleviated evidently after 1 month.

Conclusion: Although the etiology of MD remained undetermined, we showed that eradication of *H pylori* in this case might contribute to the disease remission. This study enlarged the present understanding of MD.

Abbreviations: *H pylori*=*Helicobacter pylori*, MD=Ménétrier disease.

Keywords: entire colon, Ménétrier disease, small bowel

1. Introduction

Ménétrier disease (MD), a hypoproteinemic hypertrophic gastropathy, presents typical clinical symptoms including nausea, vomiting, diarrhea, epigastric pain, weight loss, malnutrition, fatigue, and peripheral edema due to hypoalbuminemia.^[1] Although the definite etiology of MD in adults still remains unknown, it often coexists with some specific infections, such as cytomegalovirus, *Helicobacter pylori*, herpes virus, human immunodeficiency virus, mycoplasma^[2–6] as well as nonspecific ulcerative colitis.^[7] Nevertheless, MD patients can show no remission when specific therapies are employed in these disorders. In this case, we showed that MD was involved in

the stomach, small intestine, and entire colon, which rarely happened.

2. Consent

This study was approved by the Ethics Committee of Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology. The written informed consent was obtained.

3. Case description

A 76-year-old male patient was admitted to Tongji Hospital (Wuhan, Hubei province, China). He presented with intermittent diarrhea, epigastric pain, nausea, vomiting, asitia, and weight loss. He had hypoalbuminemia (29.5 g/L), which the normal range of the index is from 35 to 52 g/L, but no obvious peripheral edema. Previous medical history included hypertension; laparoscopic cholecystectomy, common bile duct exploration, and T tube drainage; endoscopic retrograde cholangiopancreatography for the obstruction of the common bile duct. Family history was not contributory. The abnormal findings in laboratory studies were hypoalbuminemia and *H pylori* infection. The tumor markers test including alpha-fetoprotein, carcinoembryonic antigen, cancer antigen125, and cancer antigen19-9 was negative. The gastroscopy results showed protrusive lesions in the body and the fundus of the stomach (Fig. 1A), with multiple nodular changes in the antrum (Fig. 1B). The diffuse and irregular shapes were seen in duodenum (Fig. 1C), and it was the same to the whole small intestine that identified by capsule endoscopy. The colonoscopy was also performed because of the diarrhea, revealing diffuse elevations of various sizes, which was obvious in the cecum and ascending colon (Fig. 1D).

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Department of Gastroenterology, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, Hubei Province, China.

* Correspondence: Yujia Xia and Mei Liu, Department of Gastroenterology, Wuhan, China, e-mail: fliumei@126.com (ML) or xiayaren@126.com (YX)

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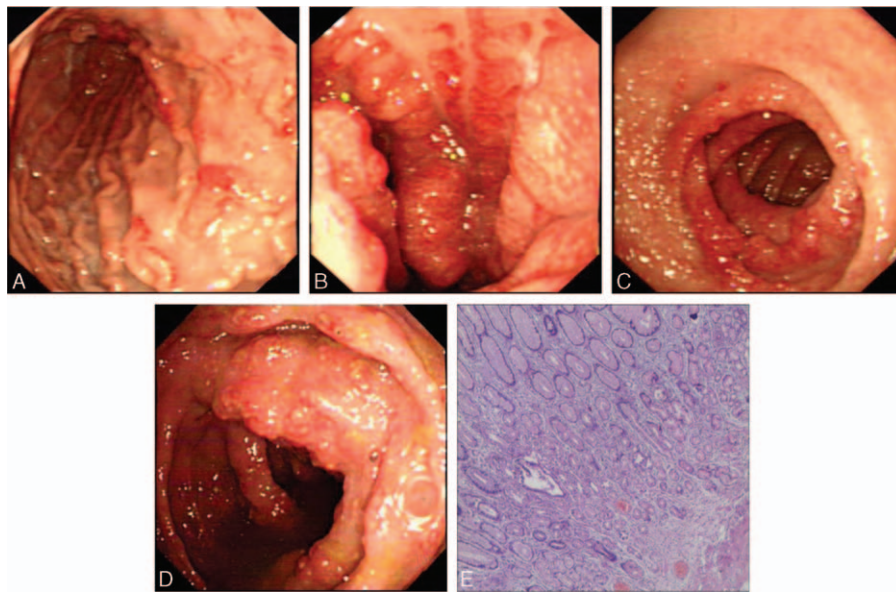


Figure 1. Endoscopic appearance and microscopic biopsy at diagnosis of the Ménétrier disease. (A) View showing the gastric body; (B) view of the pyloric antrum; (C) picture of the duodenum; (D) picture exhibiting the ascending colon; and (E) histology of specimen from the gastric antrum acquired by EMR (hematoxylin and eosin staining). EMR=endoscopic mucosal resection.

A histology of biopsy specimens acquired by endoscopic mucosal resection showed marked foveolar epithelial hyperplasia and no epithelial atypia, elongated foveolar epithelium, interstitial edema, and cystic dilation of foveolar glands without increase of inflammatory cells infiltration (Fig. 1E, hematoxylin and eosin staining).

Moreover, infection with *H pylori* has been implicated in MD.^[8,9] Therefore, eradication therapy for *H pylori* was administered, which was composed of pantoprazole (standard dose, b.i.d.), amoxicillin (1000 mg, b.i.d.), and clarithromycin (500 mg, b.i.d.) for 10 days. Meanwhile, a high-protein diet was enjoined. After 1 month, the above patient's symptoms were alleviated evidently, the hypoalbuminemia had been improved (32.7g/mL), and his body weight also increased. The telephone follow-up was conducted 3 months afterward, and the patient still did not feel uncomfortable.

4. Discussion

MD is an uncommon condition characterized by protein-losing and hypertrophic gastropathy. In adults (mean age at diagnosis is 55), the disorder of MD usually presents with an insidious onset and a progressive clinical course.^[10,11] The definitive etiology of MD is still unknown, but *H pylori* infection is believed to have some relation with it.^[8] This viewpoint is also verified in this case report. MD should be suspected in cases of upper gastrointestinal tract symptoms and hypertrophied gastric mucosa with or without *H pylori* or hypoalbuminemia. Before MD is diagnosed, some other hypertrophic gastropathies, including lymphoma, polyposis, and suspected gastric malignancies, should discriminate from it. Further, it must be based on a comprehensive collection of data concerning clinical, endoscopic, laboratory, and histopathological findings. MD is generally shown by huge gastric mucosal folds in the body and fundus, with antral sparing. However, there are some reports showing that MD affects the entire stomach,^[12] the duodenum,^[13] and the small bowel.^[12,14] Herein, we describe a patient who bears *H pylori* infection and

MD, and this disorder is involved not only in stomach, but also in both the small bowel and total colon. However, as for the colon, the lesion is especially obvious in the cecum and ascending colon. *H pylori* eradication treatment was initiated and provided therapeutic benefit to this patient.

Above all, in order to establish the correct diagnosis of MD, the histological findings, endoscopic and clinical features all should be necessary. Since the knowledge regarding its pathogenesis and effective therapeutic management has been lack so far, MD should be paid more attention to with particular treatment and ruled out of other similar diseases.

References

- [1] Rich A, Toro TZ, Tanksley J, et al. Distinguishing Menetrier's disease from its mimics. *Gut* 2010;59:1617–24.
- [2] Eisenstat DD, Griffiths AM, Cutz E, et al. Acute cytomegalovirus infection in a child with Menetrier's disease. *Gastroenterology* 1995; 109:592–5.
- [3] Badov D, Lambert JR, Finlay M, et al. *Helicobacter pylori* as a pathogenic factor in Menetrier's disease. *Am J Gastroenterol* 1998;93:1976–9.
- [4] Jun DW, Kim DH, Kim SH, et al. Menetrier's disease associated with herpes infection: response to treatment with acyclovir. *Gastrointest Endosc* 2007;65:1092–5.
- [5] diSibio G, McPhaul LW, Sarkisian A, et al. Menetrier's disease associated with Kaposi's sarcoma. *Exp Mol Pathol* 2008;85:160–4.
- [6] Ben Amitai D, Zahavi I, Dinari G, et al. Transient protein-losing hypertrophic gastropathy associated with *Mycoplasma pneumoniae* infection in childhood. *J Pediatr Gastroenterol Nutr* 1992;14: 237–9.
- [7] Nguyen VX, Nguyen CC, Leighton JA, et al. The association of Menetrier disease with ulcerative colitis: a case report with implications on the pathogenesis of Menetrier disease. *Case Rep Gastroenterol* 2010;4:66–70.
- [8] Fretzayas A, Moustaki M, Alexopoulou E, et al. Menetrier's disease associated with *Helicobacter pylori*: three cases with sonographic findings and a literature review. *Ann Trop Paediatr* 2011;31:141–7.
- [9] Johnson MI, Spark JI, Ambrose NS, et al. Early gastric cancer in a patient with Menetrier's disease, lymphocytic gastritis and *Helicobacter pylori*. *Eur J Gastroenterol Hepatol* 1995;7:187–90.

- [10] Coffey RJ, Washington MK, Corless CL, et al. Menetrier disease and gastrointestinal stromal tumors: hyperproliferative disorders of the stomach. *J Clin Invest* 2007;117:70–80.
- [11] Brautbar A, Paz J, Hadas-Halpern I, et al. Menetrier's disease presenting as an acute protein-losing gastroenteropathy in a 27-year-old man with Gaucher disease. *Eur J Gastroenterol Hepatol* 2005; 17:679–81.
- [12] Konstantinidou AE, Morphopoulos G, Korkolopoulou P, et al. Menetrier disease of early infancy: a separate entity? *J Pediatr Gastroenterol Nutr* 2004;39:177–82.
- [13] Wu CS, Lin CJ, Chen TC, et al. Menetrier's disease: a new variant with duodenal involvement. *Am J Gastroenterol* 1997;92:1041–3.
- [14] Duprey KM, Ahmed S, Mishriki YY. Menetrier disease in an acquired immunodeficiency syndrome patient. *South Med J* 2010;103:93–5.