A case of multiple myeloma initially presenting as hematemesis

Hai-Bo Zhou

Department of Gastroenterology, Second Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou, China

Cite this article as: *Zhou HB. A case of multiple myeloma initially presenting as hematemesis. Turk J Gastroenterol 2018; 29: 108-11.*

ABSTRACT

A few cases of multiple myeloma with gastrointestinal bleeding have been reported, but hematemesis is rarely encountered as an initial symptom of multiple myeloma. Here we report a case of multiple myeloma with an initial symptom of hematemesis. Gastroscopy revealed ulceration in the angulus of the stomach. Colonoscopy revealed many ulcers in the ascending colon. A definite diagnosis of gastrointestinal amyloidosis was made using tissue biopsy. A definite diagnosis of multiple myeloma was made using bone marrow puncture. Hematemesis may be an initial symptom of multiple myeloma. A diagnosis of amyloidosis-induced hematemesis should be considered in patients with multiple myeloma.

Keywords: *Multiple myeloma; amyloidosis; gastrointestinal hemorrhage; tissue biopsy; bone marrow puncture*

INTRODUCTION

Amyloidosis is a complication of multiple myeloma, which is a malignant proliferation of plasma cells (1). Gastrointestinal manifestation of amyloidosis is often asymptomatic (2). A few cases of amyloidosis-induced gastrointestinal hemorrhage have been reported (3-7), but amyloidosis-induced hematemesis as an initial symptom in multiple myeloma has been rarely reported.

CASE PRESENTATION

A 63-year-old woman was hospitalized because of hematemesis for two weeks. Written informed consent was obtained from her. At the time of hospitalization, the patient had no abdominal pain and hematemesis but showed marked normochromic anemia [hemoglobin, 66 (normal range: 113-151) g/L; mean corpuscular volume (MCV), 91.5 fL (normal range: 84.0-94.0) fL; mean corpuscular hemoglobin (MCH), 28.0 (normal range: 27.0-34.0) pg], and her leukocyte and platelet counts were normal. Renal function was normal. Blood calcium level was 1.85 (normal range: 2.25-2.75) mmol/L. Liver function was normal, but albumin level was 25.7 (normal range: 35-45) g/L and total serum protein level was 64.6 (normal range: 60-80) g/L. Hepatitis B surface antigen (HBsAg), human immunodeficiency virus (HIV), syphilis, tumor markers, and nuclear antigen-antibody series revealed negative results. Immunoglobulin G(IgG) level was 18.74 (normal range: 6-16) g/L. Immune fixed electrophoresis and immunophenotyping of IgG, k chain, and λ chain revealed positive results. Two days after the initial observation, abdominal computed tomography (CT), esophagogastroduodenoscopy (EGD), and colonoscopy were performed again. Abdominal CT showed widespread thickening of the intestinal wall. EGD revealed ulceration in the angulus of the stomach (Figure 1). Colonoscopy showed many ulcers in the ascending colon (Figure 2). A definite diagnosis of gastrointestinal amyloidosis was made using tissue biopsy (Figure 3 and 4). Figure 3a showed that amyloid granules were visible below the epithelium in the gastric antrum and figure 3b showed that amyloid granules were stained positive on Congo red staining in the gastric antrum. Figure 4a showed that amyloid granules were visible below the epithelium in the ascending colon and figure 4b showed that amyloid granules were stained positive on Congo red staining in the ascending colon. Therefore, bone marrow puncture was performed. Bone marrow cell morphology examination indicated plasma cell myeloma infiltrated bone marrow. A definite diagnosis of Ig G/λ multiple myeloma was made. The patient was transferred to the hematology ward for treatment. She was administered chemotherapy of cyclophospha-

ORCID ID of the authors *H.B.Z. 0000-0002-4198-9180*

Address for Correspondence: ***Hai-Bo Zhou*** *E-mail:* ***zhouhaibohz@163.com***

Received: ***July 1, 2017*** *Accepted:* ***September 7, 2017***

DOI: ***10.5152/tjg.2018.17710***

Figure 1. Ulceration in the angulus of the stomach

Figure 2. Multiple ulcers in the ascending colon

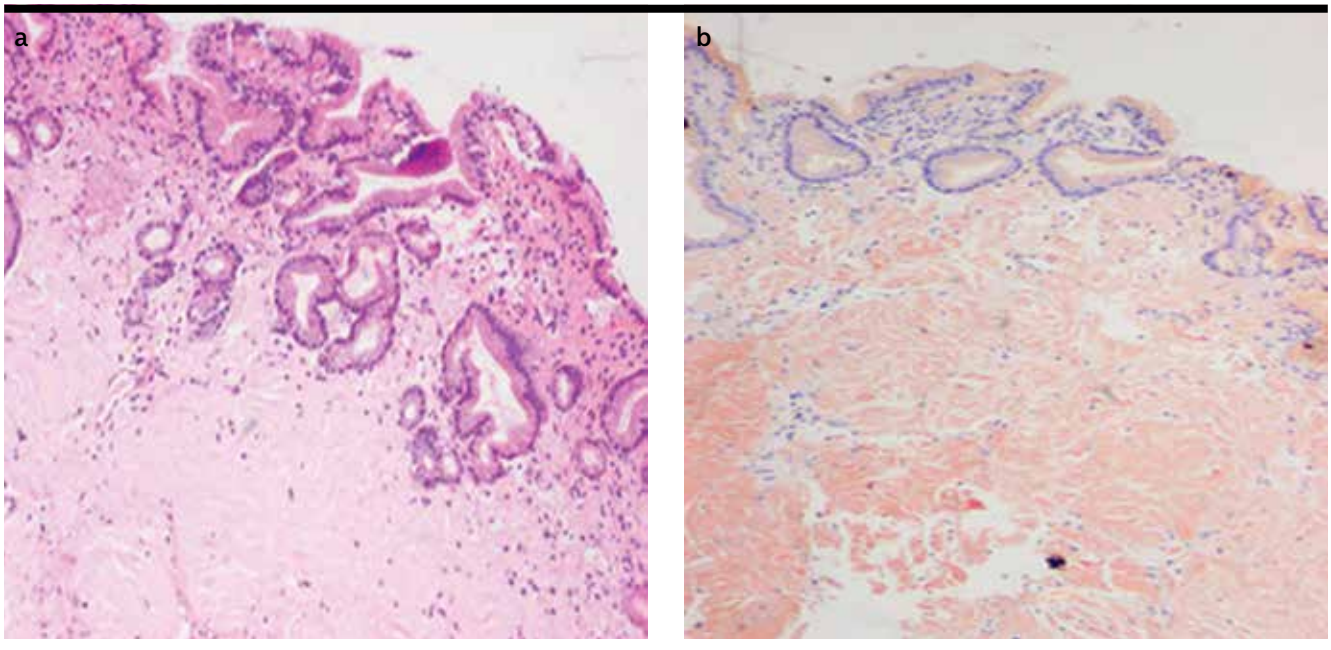

Figure 3. a, b. (a)Amyloidosis in the gastric antrum, 100×; (b)positive Congo red staining in the gastric antrum, 100×

mide (Hengrui Medicine Co. Ltd, Jiangsu, China) 400 mg d1-4, dexamethasone (Xianju Pharmaceutical Co. Ltd) 20 mg d1-4 and 15-18 , and thalidomide (Changzhou Pharmaceutical Co. Ltd) 50 mg qn and was discharged from the hospital three weeks later.

DISCUSSION

Alimentary symptoms of multiple myeloma include malabsorption, constipation, diarrhea, abdominal pain, motility disturbance, perforation, obstruction, intestinal infarction, and hemorrhage (8-12). A few cases of mul-

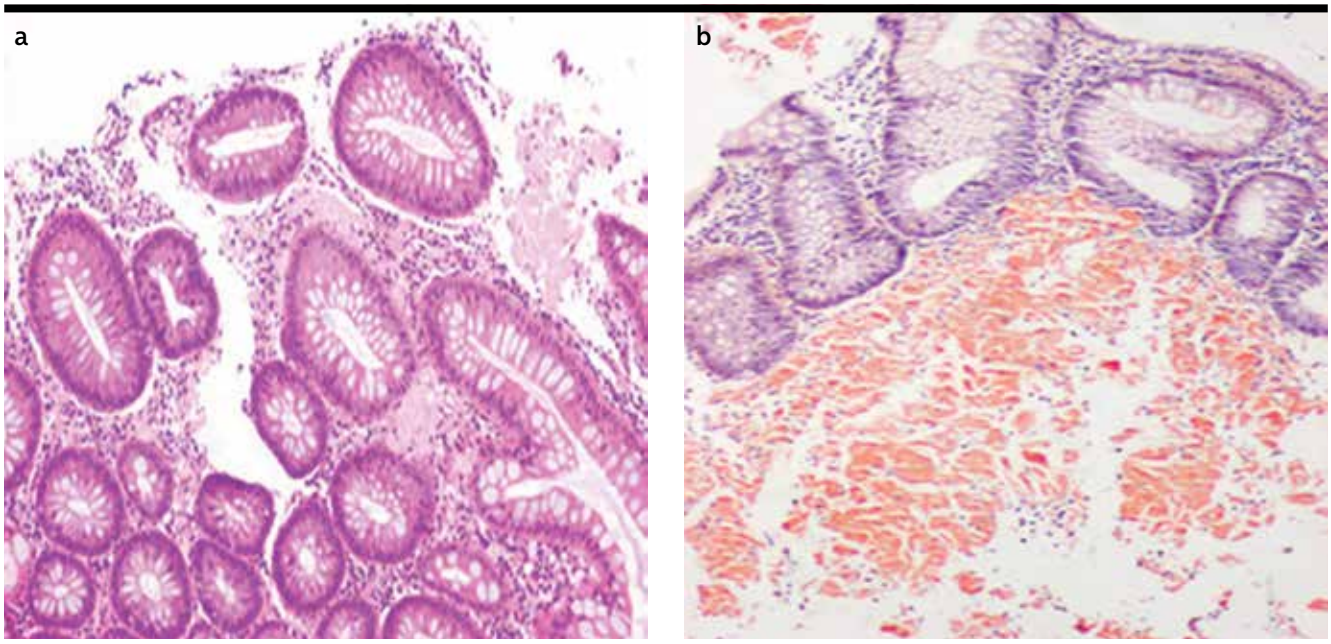

Figure 4. a, b. (a)Amyloidosis in the ascending colon, 100×; (b)positive Congo red staining in the ascending colon, 100×

tiple myeloma with gastrointestinal bleeding have been reported (3-7).

Hematemesis as an initial symptom of multiple myeloma has been reported in only one case report (7). Our patient was also a case of multiple myeloma with amyloidosis-induced hematemesis. Various endoscopic findings, such as erosions, ulcerations, mucosal friability, thickened mucosal folds, or even submucosal hematoma, are present in gastrointestinal amyloidosis (13,14). Endoscopic tissue biopsy can help make a definite diagnosis of gastrointestinal amyloidosis. In our case, gastroscopy revealed many ulcers in the stomach and colonoscopy revealed many ulcers in the colon. A definite diagnosis of gastrointestinal amyloidosis was made using tissue biopsy. A definite diagnosis of multiple myeloma was made using bone marrow puncture.

In conclusion, a diagnosis of amyloidosis-induced hematemesis should be considered in patients with multiple myeloma. Hematemesis may be an initial symptom of multiple myeloma. A diagnosis of amyloidosis-induced hematemesis should be considered in patients with multiple myeloma.

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

Peer-review: Externally peer-reviewed.

Conflict of Interest: No conflict of interest was declared by the author.

Financial Disclosure: The author declared that this study has received no financial support.

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