

Novel Endoscopic Finding Associated With Gastrointestinal Hemorrhage in a Post-Stem Cell Transplant Patient With Light Chain Amyloidosis

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Case Report

A 67-year-old woman with an incidental diagnosis of amyloidosis lambda subtype (AL-amyloid) presented with melena after therapy with heparin for an upper extremity deep vein thrombosis. She had undergone induction treatment with bortezomib, cyclophosphamide, weekly dexamethasone, and an autologous stem cell transplant 40 days prior to admission. Laboratory results revealed hemoglobin 5.9 g/dL and prothrombin time (PT) 84.8 seconds. An magnetic resonance imaging (MRI) of the abdomen and pelvis noted circumferential thickening of the duodenum and proximal jejunum. Upper endoscopy revealed multiple circular, shallow, 2–3-mm crater-like defects of the mucosa creating an appearance of a “moon surface mucosa” throughout the duodenum and jejunum (Figure 1). Duodenal biopsies revealed amyloid deposits involving the lamina propria, submucosa, and blood vessels. Congo red stain for amyloid was positive and showed birefringence under cross-polarized light microscopy (Figure 2).

Patients who have undergone an autologous stem cell transplant for primary amyloidosis have a high risk of gastrointestinal bleeding.¹ In this patient population, there is a statistically significant prolongation of thrombin time and PT, particularly in patients with hepatic amyloid infiltration and nephrotic syndrome.² In addition, there may also be a deficiency of the vitamin K-dependent factors and a greater prevalence of acquired factor X deficiency.³ Abnormal light chain proteins are deposited in the muscularis mucosa, submucosa, and muscularis propria, which can cause ulcerations, focal ischemia, and hemorrhage.



Figure 1. Endoscopy revealed a “moon surface mucosa” throughout the duodenum and jejunum, along with friable mucosa that oozed on contact.

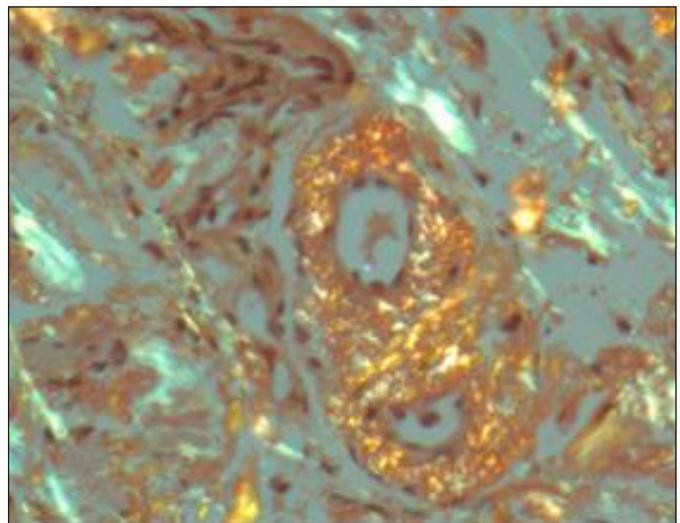


Figure 2. Congo red stain for amyloid was positive and showed birefringence on polarization.

ACG Case Rep J 2015;2(3):129-130. doi:10.14309/crj.2015.29. Published online: April 10, 2015.

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This case highlights the novel endoscopic finding of a “moon surface mucosa” in the small bowel, which was a likely contributor in this case of gastrointestinal hemorrhage.

Disclosures

Author contributions: S. Gandhi and S. Arora share first authorship, wrote the manuscript, and performed revisions. S. Gandhi is the author guarantor. M. Brown assisted in editing the final manuscript. S. Jakate prepared and interpreted the histology.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received: July 21, 2014; Accepted: January 28, 2015

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