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Complete resolution of gastric amyloidosis after autologous stem cell transplantation.

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A 48-year-old female with multiple myeloma (MM) and amyloidosis presented with massive upper gastrointestinal (GI) bleeding one week after autologous stem cell transplantation (autologous-SCT). Esophagogastroduodenoscopy (EGD) demonstrated necrotic, purple, pigmented, friable lesions throughout the stomach (Figure 1a), along with a bleeding ulcer in the cardia (Figure 1b, Video 1) which was successfully treated with epinephrine (1:10,000) injections. Biopsies demonstrated nodular amyloid deposition (Figures 2) which was Congo red positive. The patient had no further hematemesis and was discharged home 4 days later. Ten months after autologous-SCT, EGD revealed a normal stomach (Figure 3, Video 2) with no histologic evidence of amyloid.

AL amyloid of the GI tract involves the stomach in 8% of cases [1]. Only 1% with gastric amyloidosis manifest symptoms such as bleeding [1,2], which has been attributed to light chain deposition in blood vessels causing increased friability and eventual bowel infarction [2,3]. Characteristic endoscopic findings include thickened folds, mucosal erosions, submucosal hematomas, ulcerations and mucosal friability [2]. Histology demonstrates deposition of amorphous hyaline material on H&E stain which is Congo-red stain positive. Treatment of AL amyloid is aimed at the underlying plasma cell disorder in order to decrease light chain production. High-dose melphalan followed by autologous-SCT induces a complete hematologic response, along with reversal of amyloid dependent organ dysfunction, in a majority of patients in about 3 months [4,5]. This therapy may be associated with significant toxicity, especially in patients with underlying cardiac disease.

There is very limited published data documenting reversal of symptomatic GI amyloid with MM therapy [4,5]. We believe this is the first reported case of complete endoscopic and histologic resolution of GI amyloid, particularly amyloid induced GI bleeding, following autologous-SCT. In carefully selected patients with MM, high-dose melphalan followed by autologous-SCT may be effective for symptomatic AL amyloid of the GI tract.

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Figure Legend

Video 1 Large ulcer in the cardia containing a bleeding pigmented lesion. Numerous additional lesions are present throughout the stomach which, upon probing, are friable and necrotic.

Video 2 Complete resolution of gastric amyloid 10 months after autologous stem cell transplant.

Figure 1a A large pigmented lesion in the body of the stomach.

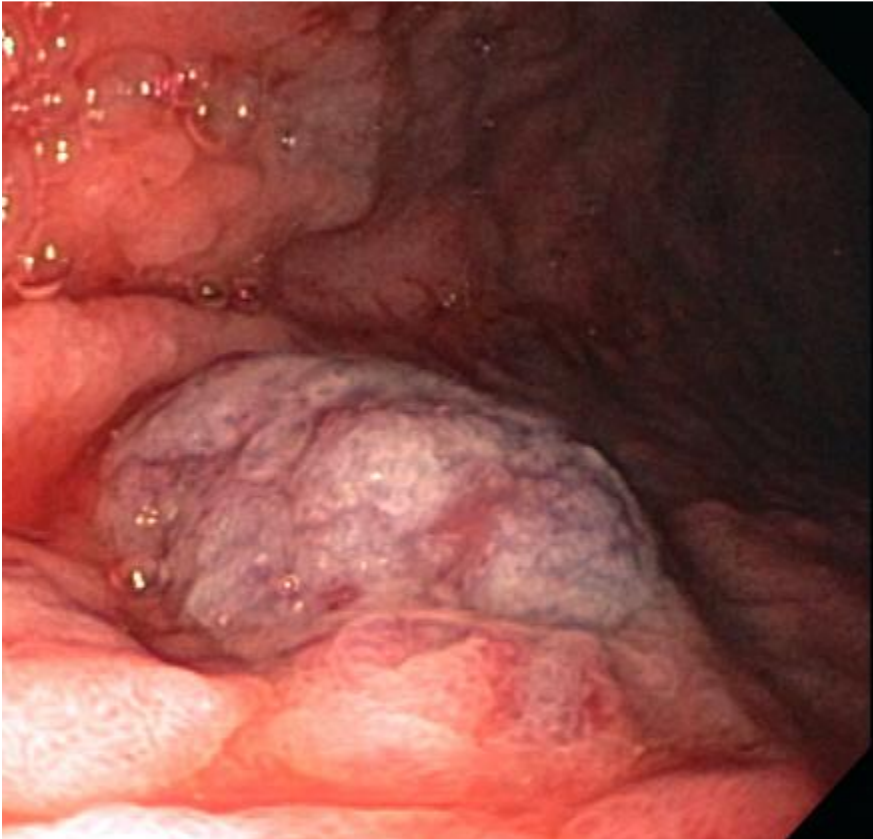


Figure 1b Giant ulcer in the cardia containing a large, necrotic, bleeding pigmented lesion.

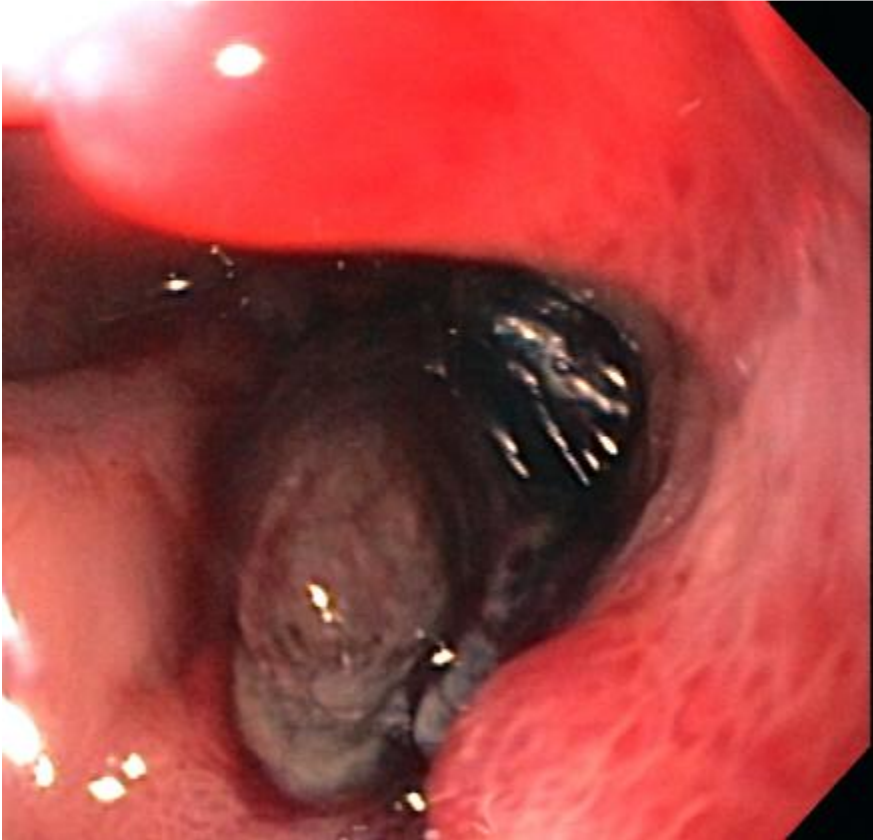


Figure 2 Gastric biopsy with dense amyloid deposition in the mucosa at high magnification.

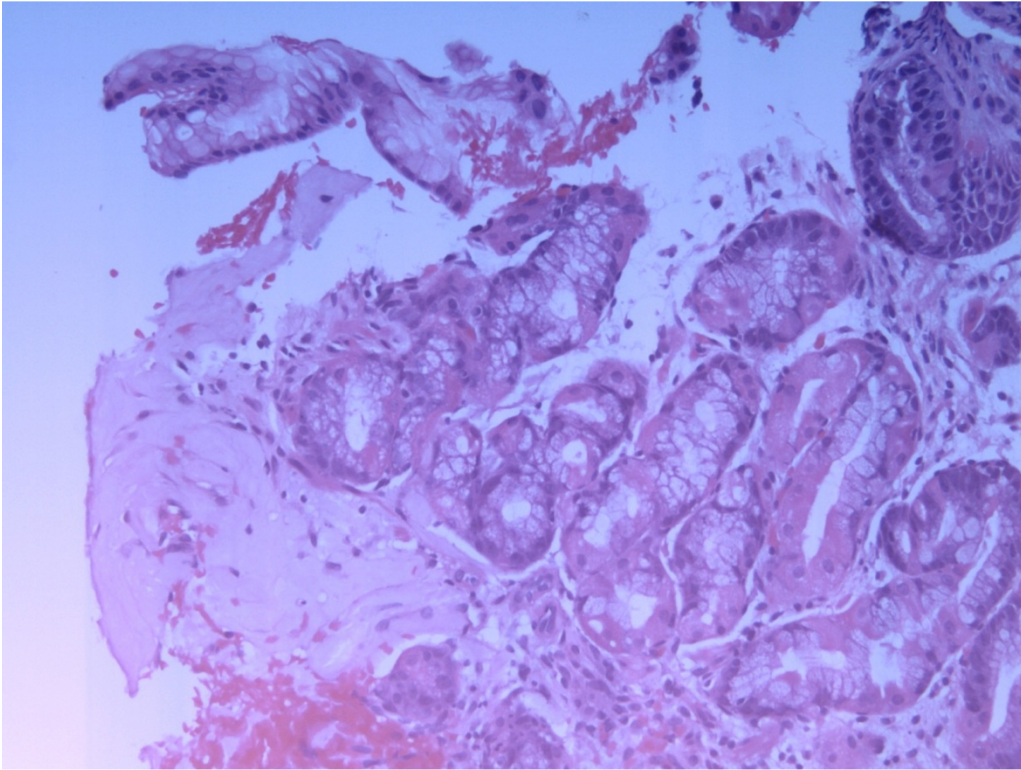


Figure 3 Normal gastric cardia and fundus 2 months after autologous stem cell transplant.

