Complete resolution of gastric amyloidosis after autologous stem cell transplantation

A 48-year-old woman with multiple myeloma and amyloidosis presented with massive upper gastrointestinal bleeding 1 week after autologous stem cell transplantation (autologous-SCT). Esophagogastroduodenoscopy (EGD) demonstrated necrotic, purple, pigmented, friable lesions throughout the stomach (Fig. 1a), along with a bleeding ulcer in the cardia containing a central pigmented lesion (Fig. 1b; Video 1) which was successfully treated with epinephrine (1:10000) injections. Biopsies demonstrated nodular amyloid deposition (Fig. 2) which was Congo-red-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 in the 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 are very limited published data documenting reversal of symptomatic gastrointestinal amyloid with multiple myeloma therapy [4,5]. We believe this is the first reported case of complete endoscopic and histologic resolution of gastrointestinal amyloid, particularly gastrointestinal amyloid causing bleeding, following autologous-SCT. In carefully selected patients with multiple myeloma, high-dose melphalan followed by autologous-SCT may be effective for symptomatic AL amyloid of the gastrointestinal tract.

AL amyloid of the gastrointestinal tract involves the stomach in 8% of cases [1]. Only 1% of patients 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 to decrease light-chain production.

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