Massive small-bowel bleeding treated with hemostatic powder

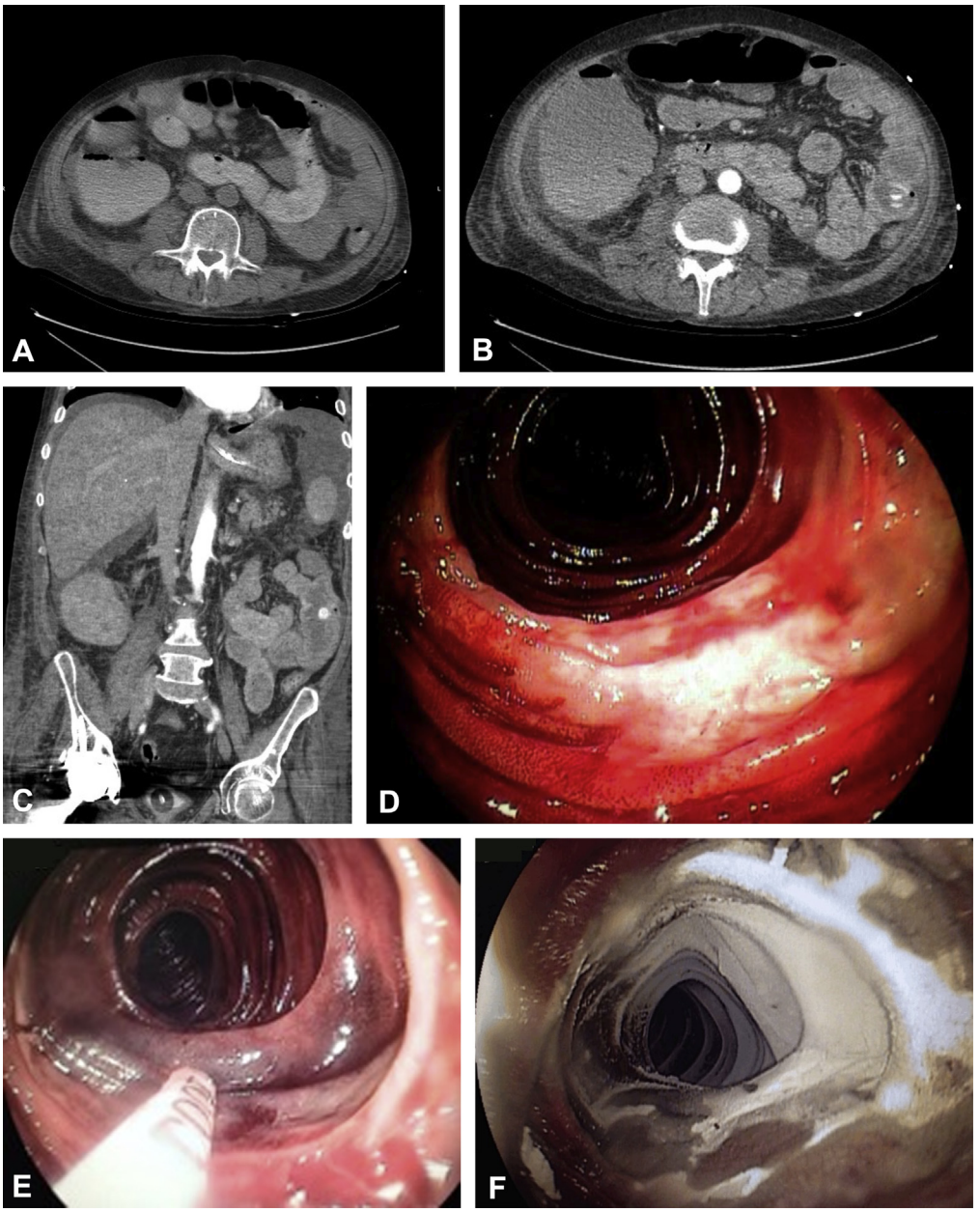

Figure 1. A, CT angiographic view showing intraluminal active bleeding. **B,** CT angiographic view showing hyperdense wall thickening. **C,** CT angiographic view showing hyperdense wall thickening and focal point of active bleeding. **D,** Double-balloon enteroscopic view showing circumferencial active bleeding ulcer in midjejunum. **E,** Beginning of Hemospray application. **F,** Hemospray applied to midjejunum.

In patients who present with GI bleeding, the underlying cause may not be evident on initial evaluation in 10% to 20% of cases. Recurrent or persistent bleeding occurs in approximately half of these patients (5%) and can pose a significant challenge to both diagnosis and management.

Written transcript of the video audio is available online at www.VideoGIE.org.

Small-bowel lesions account for most causes of obscure GI bleeding (~75%) and predominantly include vascular lesions (~70%) in the Western population and ulcerations (~45%) in the Asian population.

We report a case in which hemostatic powder was used to treat massive small-bowel bleeding. A 68-year-old man who had undergone renal transplantation presented with hypotension, anemia, melena, elevated erythrocyte sedimentation rate, unexplained fever, weight loss, and severe septic shock. He was admitted, and urgent upper endoscopy and colonoscopy showed unremarkable results. His hemoglobin level at admission was 8.6 mg/dL. CT angiography revealed intraluminal active bleeding (Fig. 1A), hyperdense wall thickening in the midjejunum, and mesenteric and retroperitoneal lymphadenopathy (Figs. 1B and C). Antegrade double-balloon enteroscopy showed a large circumferential ulceration in the midjejunum with diffuse massive bleeding (Figs. 1D and E; Video 1, available online at www.VideoGIE.org) before the administration of hemostatic powder. Biopsy specimens were taken. Then, TC-325 or Hemospray (Cook Medical, Winston-Salem, NC) was applied to the lesion by use of a 7F catheter. A total of 25 g hemostatic powder was applied to the jejunal ulcer site, resulting in good hemostasis (Fig. 1F). There were no procedural adverse events. The patient's hemoglobin level after the procedure was 10.3 mg/dL; however, he died 3 days later secondary to multiple organ failure. Histologic examination of the biopsy specimens confirmed non-Hodgkin lymphoma.

Hemospray is a mineral blend powder developed specifically for endoscopic hemostasis. It contains no human or animal proteins or botanicals and has no known allergens. Achieving hemostasis with Hemospray is simple and requires a lower level of endoscopic skills than thermocoagulation or clipping. Hemospray is a simple hemostatic tool that can be used for the treatment of small-bowel bleeding with the use of deep enteroscopy. Further studies are needed to confirm its efficacy for small-bowel bleeding.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

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