

Successful Hemospray treatment for recurrent diclofenac-induced severe diffuse lower gastrointestinal bleeding avoiding the need for colectomy

Endoscopic hemostasis is difficult to obtain in diffuse bleeding from broad lesions in the colon. Hemospray (Cook Medical, Limerick, Ireland) is a mineral-based granular powder that absorbs water and activates the clotting cascade [1]. It is approved for nonvariceal upper gastrointestinal bleeding [2] but, other than in Canada, it is not approved for use in the lower gastrointestinal tract. In the case reported here, Hemospray was used as a “last-resort” therapeutic option to avoid an emergency colectomy.

A 66-year-old woman with no previous history of gastrointestinal bleeding presented with a severe episode of lower gastrointestinal bleeding (drop in hemoglobin from 13.1 g/dL to 7.9 g/dL) 6 days after total hip replacement. Her medication included nonsteroidal anti-inflammatory drugs (NSAIDs) in the form of diclofenac 50 mg three times daily and a proton pump inhibitor (PPI).

Colonoscopy revealed a blood-filled lower gastrointestinal tract with diffuse active bleeding in the right hemicolon and ce-

cum from multiple broad, superficial ulcers (● Fig. 1 a). The endoscopic appearance was compatible with ischemic or NSAID-associated colonopathy. Because there was a lack of reasonable alternative endoscopic therapies, we used Hemospray in the cecum and ascending colon with the aim of avoiding the need for the patient to undergo an emergency hemicolectomy. Bleeding was controlled immediately (● Fig. 1 b).

Recurrent colorectal bleeding occurred 2 days later. Repeat colonoscopy showed surprisingly well-healed fibrin-covered ulcers and mucosal inflammation in the cecum (● Fig. 1 c) and ascending colon. However, diffuse active bleeding was found from multiple superficial ulcers in the transverse colon that had not been present 2 days earlier (● Fig. 1 d). We decided to treat again with Hemospray.

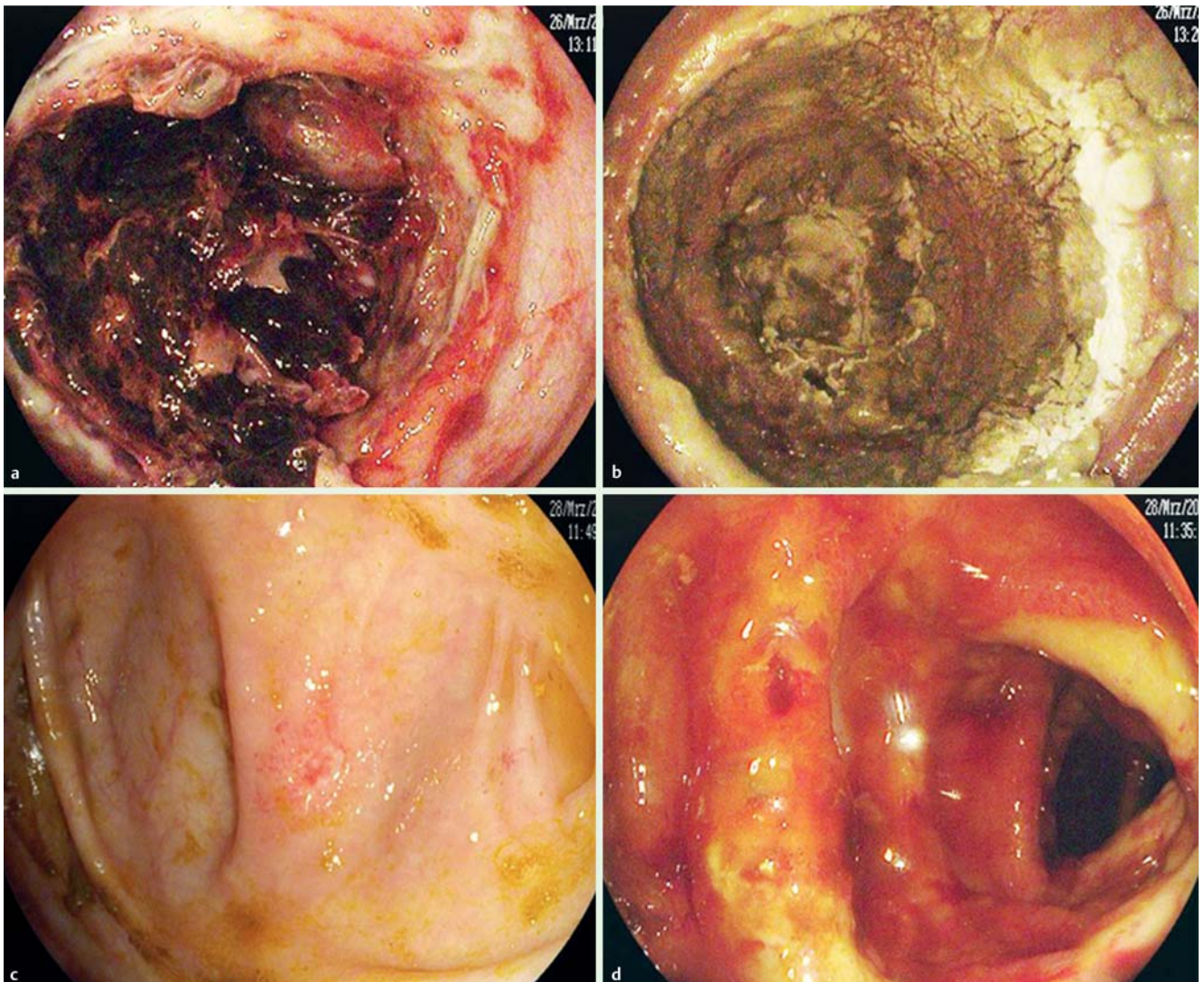


Fig. 1 Colonoscopic appearances in a 66-year-old woman who was taking nonsteroidal anti-inflammatory drugs (NSAIDs) and presented with severe lower gastrointestinal bleeding: **a** the cecum prior to Hemospray treatment; **b** the cecum after Hemospray therapy; **c** the cecum 2 days after treatment showing surprisingly well-healed lesions; **d** the transverse colon on repeat colonoscopy with diffuse bleeding.

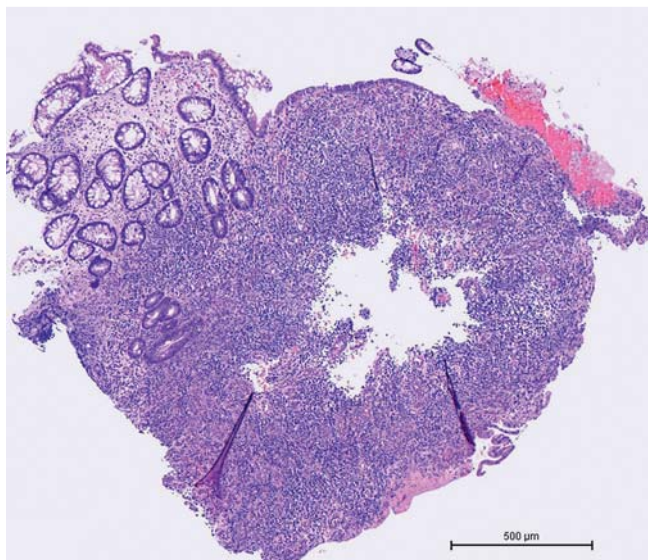


Fig. 2 Histological appearance of a specimen taken from the transverse colon showing extensive mucosal damage and marked architectural distortion consistent with colitis induced by a nonsteroidal anti-inflammatory drug (NSAID).

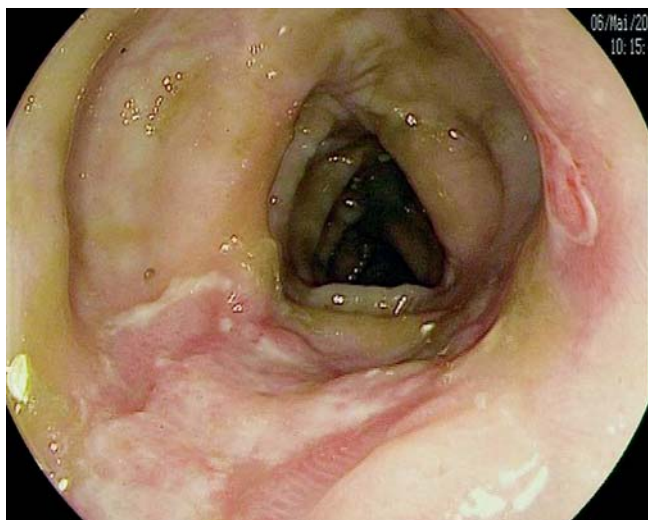


Fig. 3 Colonoscopic appearance of the transverse colon 6 weeks later showing marked regression of the ulceration and no signs of recurrent bleeding.

Biopsies revealed ulcerative inflammation concordant with NSAID-associated colitis (● **Fig. 2**). The patient's clinical condition was stable after the second treatment and she was discharged 5 days later. A follow-up colonoscopy after 6 weeks revealed completely healed lesions in the cecum and ascending colon, and improving ulceration in the transverse colon with no signs of recurrent bleeding

(● **Fig. 3**). Biopsies were repeated and confirmed NSAID-associated colitis. In summary, Hemospray therapy was successful in controlling the patient's colonic bleeding, and thereby avoided her needing to undergo a colectomy. Hemospray seems to be suitable for the treatment even of severe bleeding in the lower gastrointestinal tract, especially for broad lesions with diffuse bleeding.

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Competing interests: None

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