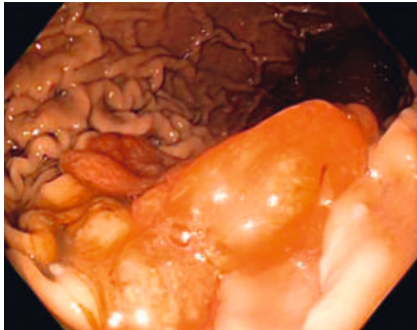


## Novel use of a colonic intraprocedural cleansing device for upper gastrointestinal bleeding

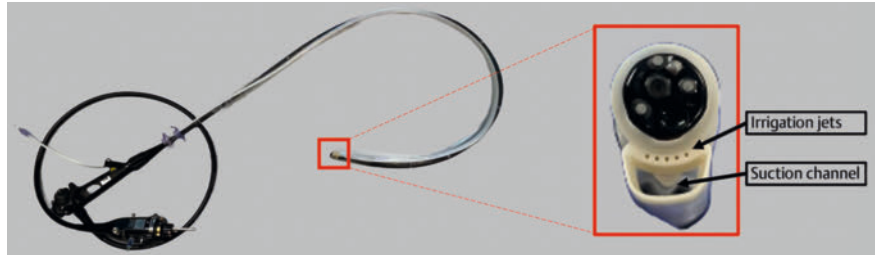
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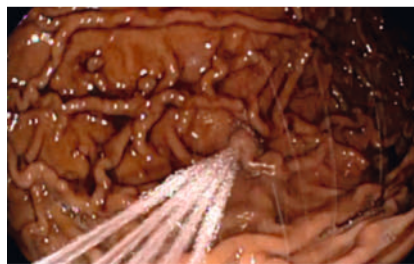
► **Fig. 1** Two 20–30 mm pedunculated polyps were found in the gastric body.

A 74-year-old patient with iron deficiency anemia presented for an outpatient upper endoscopy. Two 20–30 mm pedunculated polyps were detected in the gastric body (► **Fig. 1**) and removed with a hot snare. Polypectomy bleeding prompted hemostatic clip placement. However, bleeding persisted, and endoscopic visualization was compromised. The endoscope was exchanged for one with a larger suction channel, but visualization remained inadequate. Therefore, the Pure-Vu EVS System (Motus GI, Tirat Carmel, Israel), a US Food and Drug Administration-approved oversleeve-based intraprocedural cleansing device intended for use in the colon (► **Fig. 2**), was used to improve visualization, allowing further hemostatic interventions.

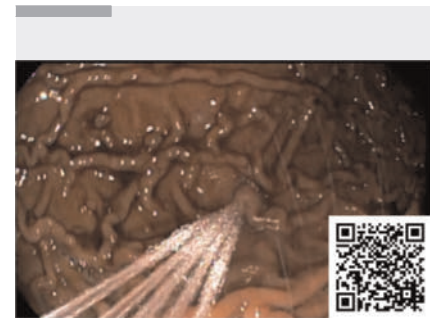
The endoscope was removed to load the device, which contains five irrigation jets and a large-caliber suction channel attached to a device-specific workstation. The device leaves the working channel free. With the device in place, esophageal intubation was performed without difficulty. The powerful irrigation and suction capabilities of the device allowed rapid clearance of blood and clot (► **Fig. 3**, ► **Video 1**). Additionally, a large clot was suctioned into the device suction channel, and utilizing a manual purge function, the clot was deposited in the gastric antrum. With improved visualiza-



► **Fig. 2** Intraprocedural cleansing device. The over-the-scope device was loaded onto a colonoscope. The device contains five irrigation jets and a large suction channel, and does not inhibit the use of the colonoscope's working channel.



► **Fig. 3** Device irrigation jets. The jets of the intraprocedural cleansing device cleansed the stomach wall.



► **Video 1** A colonic intraprocedural cleansing device was used to improve endoscopic visualization during upper gastrointestinal bleeding.

tion, epinephrine was injected and additional hemostatic clips were placed (► **Fig. 4**). To prevent rebleeding, hemostatic spray was applied (► **Fig. 5**). With the working channel free and endoscope maneuverability uninhibited, the device was left in place throughout the procedure. Ultimately, definitive hemostasis was achieved, and there were no adverse events. Pathology revealed benign foveolar hyperplastic polyps.

While this intraprocedural cleansing system is known to be effective for improving colonic bowel preparation [1,2,3], this is the first reported case of using this device in the upper gastrointestinal tract. Use of the device was warranted given failure of other conventional methods to improve visualization. The device was an effective method for rapidly improving visualization and allowing for timely hemostatic interventions in the



► **Fig. 4** Hemostasis after endoscopic clipping. View of the polypectomy site after multiple hemostatic clips were placed to achieve hemostasis.

setting of vigorous iatrogenic upper gastrointestinal bleeding.

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► **Fig. 5** Hemostatic spray application to the polypectomy site. At the end of the procedure, hemostatic spray was applied to the polypectomy site to prevent re-bleeding. This was performed easily with the device in place as it does not block the working channel of the endoscope.

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We would like to thank Dr. Andrew Reinink at the Minneapolis VA Medical Center for his role in this patient's care.

## Conflict of Interest

M. Bilal is a consultant for Boston Scientific. B. Hanson is a consultant for Motus GI. Motus GI did not financially support this case study. T. Herman, M. Freeman, N. Wongjarupong, V. Are, and L. Le declare that they have no conflict of interest.

## The authors

**Tessa Herman**<sup>1</sup>, **Morgan Freeman**<sup>2</sup>, **Nicha Wongjarupong**<sup>2</sup>, **Vijay Are**<sup>2</sup>, **Long B. Le**<sup>2</sup>, **Mohammad Bilal**<sup>3</sup>, **Brian J. Hanson**<sup>3</sup>

- 1 Department of Medicine, University of Minnesota, Minneapolis, United States
- 2 Division of Gastroenterology, Hepatology, and Nutrition, University of Minnesota, Minneapolis, United States
- 3 Gastroenterology, Minneapolis VA Medical Center, Minneapolis, United States

## Corresponding author

**Brian J. Hanson, MD**

Gastroenterology, Minneapolis VA Medical Center, Veterans Drive 1, 55417  
Minneapolis, United States  
brian.hanson@va.gov

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