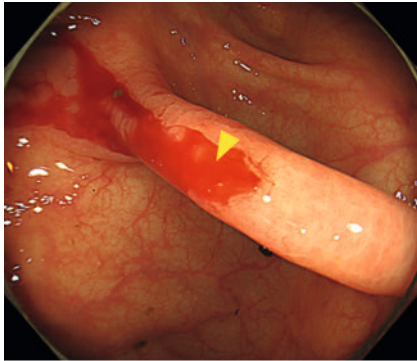
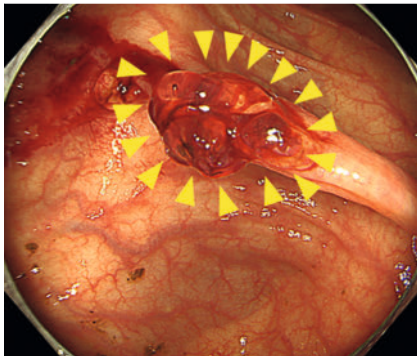


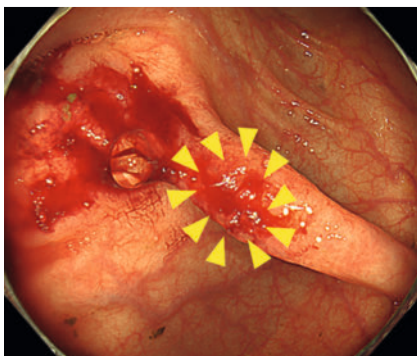
## Novel self-assembling peptide for management of bleeding associated with colorectal angiodysplasia



► **Fig. 1** Lower gastrointestinal endoscopy revealed angiodysplasia with blood oozing (arrowhead) into the cecum.



► **Fig. 2** Hemostasis was achieved by applying PuraStat to the bleeding site (arrowheads).

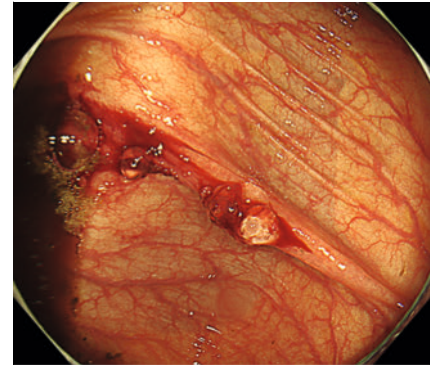


► **Fig. 3** Although PuraStat was accidentally peeled off upon contact with blood, a small amount of PuraStat remained in contact with the bleeding site (arrowheads), which maintained hemostasis.

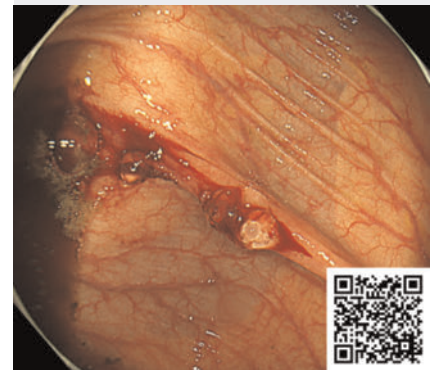
Angiodysplasia is characterized by the presence of abnormal, ectatic, dilated, tortuous, and typically small (<10 mm) blood vessels within the gut [1]. Argon plasma coagulation is a commonly performed treatment for angiodysplasia that has proven to be effective [2]; however, perforations have been reported with this treatment [3].

PuraStat (3D-Matrix Europe, Caluire, France) represents an innovative synthetic self-assembling peptide system approved for achieving hemostasis. Upon contact with blood, its unique transparent gel formulation undergoes activation due to a pH change, forming an extracellular scaffold matrix. This matrix acts as a durable mechanical barrier at the bleeding site, facilitating intrinsic hemostasis in vivo. In the context of endoscopic submucosal dissection, PuraStat has been reported to be effective for managing bleeding in conditions such as gastric antral vascular ectasia [4, 5]. Here we report a case in which the application of PuraStat was effective in controlling bleeding from angiodysplasia (► **Video 1**).

The patient was an 85-year-old woman with a history of aortic regurgitation who underwent aortic valve replacement. She was on 15 mg edoxaban tosilate hydrate and 2.5 mg prednisolone. Fecal occult blood test was conducted due to chronic anemia, which revealed a positive result. Subsequent lower gastrointestinal endoscopy revealed angiodysplasia with blood oozing into the cecum (► **Fig. 1**). Hemostasis was achieved by applying PuraStat to the bleeding site (► **Fig. 2**). Although most of the PuraStat was accidentally peeled off upon contact with blood, a small amount remained in contact with the bleeding site, which successfully maintained hemostasis (► **Fig. 3**). Additional PuraStat was applied for reinforcement before concluding the procedure (► **Fig. 4**). Thereafter, there was no recurrence of bleeding,



► **Fig. 4** Additional PuraStat was applied for reinforcement.



► **Video 1** PuraStat was applied to control bleeding from angiodysplasia in the cecum.

and the hemoglobin level increased from 7.7 g/dL prior to hemostasis to 9.5 g/dL with only the administration of oral iron. Thus, we found that PuraStat is convenient to apply and effective for achieving hemostasis in colorectal angiodysplasia, without any associated tissue damage.

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## Conflict of Interest

The authors declare that they have no conflict of interest.

## The authors

**Kenichiro Okimoto**<sup>1</sup>, **Tomoaki Matsumura**<sup>1</sup>,  
**Naoki Akizue**<sup>1</sup>, **Yuki Ohta**<sup>1</sup>, **Takashi Taida**<sup>1,2</sup>,  
**Jun Kato**<sup>1,2</sup>, **Naoya Kato**<sup>1</sup>

- 1 Gastroenterology, Graduate School of Medicine, Chiba University, Chiba, Japan
- 2 Endoscopy Center, Chiba University Hospital, Chiba, Japan

## Corresponding author

**Kenichiro Okimoto, MD, PhD**

Department of Gastroenterology, Graduate School of Medicine, Chiba University, Inohana 1-8-1, Chiba City 260-8670, Japan  
okimoto-k@chiba-u.jp

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