Successful hemostasis with red dichromatic imaging for bleeding rectal Dieulafoy’s lesion

A 74-year-old man with a history of type 2 diabetes mellitus and hemodialysis suffered from bloody stool for 2 days and underwent a colonoscopy. Laboratory data showed a drop in hemoglobin to 7.2 g/dL. During the colonoscopy, fresh blood was observed in the rectum, where a Dieulafoy’s lesion was actively bleeding. Under the white light image, the intestinal wall was coated with fresh blood, making it difficult to clearly identify the bleeding point (Fig. 1, Video 1). We switched to the red dichromatic imaging (RDI) mode for further examination, which allowed us to accurately locate the bleeding point and perform hemostasis (Fig. 2). In the end, the hemostasis of Dieulafoy’s lesion was successfully achieved (Fig. 3).

RDI is part of a new-generation image-enhanced endoscopy system (EVIS X1; Olympus Marketing, Tokyo, Japan). It utilizes both red and amber wavelengths (600 nm and 630 nm) to enhance the color contrast between the bleeder and surrounding blood pool and facilitate the identification of bleeding sites [1]. Previous reports have demonstrated its usefulness to facilitate endoscopic submucosal dissection procedures. Furthermore, the actual bleeder of a peptic ulcer [2] or post-sphincterectomy [3] was identified rapidly and precisely in RDI mode.

Dieulafoy’s lesion is an uncommon cause of acute gastrointestinal bleeding [4]. In this case, RDI could effectively assist in hemostasis, especially for inexperienced endoscopists in the emergency setting.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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E-Videos

Video 1 There is active bleeding found in the rectum. Under red dichromatic imaging mode, hemostasis was facilitated by the easy separation of the active bleeder and the surrounding blood pool.
References


Bibliography

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