

## CLINICAL IMAGE

# Ultra-delayed post-FTRD resection bleeding

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Email: vincent.zimmer@gmx.de**Abstract**

Non-exposed endoscopic full-thickness resection (EFTR) has gained much momentum in streamlining the treatment of difficult-to-resect colorectal lesions. As a reiteration of the over-the-scope clip (OTSC) platform device-assisted EFTR combines resection with defect closure, thus perforation and/or bleeding are uncommon complications.

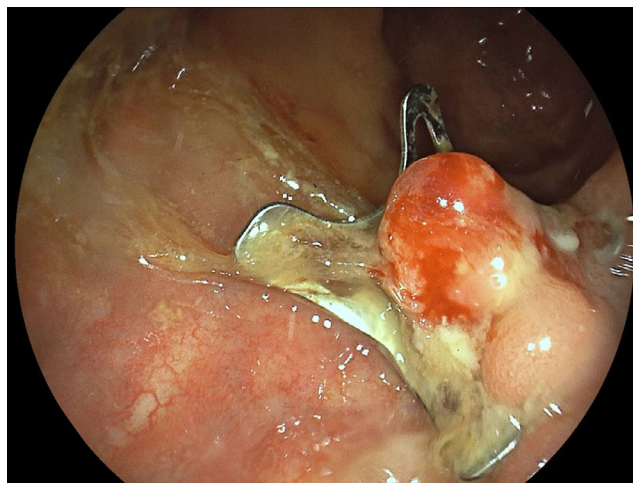
**KEYWORDS**

colonoscopy, endoscopic full-thickness resection, endoscopic resection, full-thickness resection device, granulation

A 67-year-old female patient presented for signs of lower GI bleeding. The previous history was significant for an uncomplicated, truly transmural device-assisted endoscopic full-thickness resection (EFTR) using the FTRD resection device (Ovesco Endoscopy, Tübingen, Germany) for post-EMR recurrence in the supra-anal rectum.<sup>1</sup> The hemodynamically stable patient (hemoglobin 10.6 g/dL) underwent urgent recto-sigmoidoscopy after enema preparation. Minimal amounts of blood were detected in the rectum, and minor oozing from the FTRD resection site was noted. Of interest, while the clip was still deeply attached to the mucosa, bleeding clearly originated from central granulation tissue, potentially facilitated by mechanical irritation due to vicinity to the anal canal. After injection of 2 mL diluted supra-renin and stool softening by macrogol, no further bleeding episodes occurred. A follow-up endoscopy was performed three months later demonstrating FTRD clip detachment and an unremarkable FTRD scar (Figure 1).

FTRD-based endoscopic resection has gained much momentum recently, and safety concerns mostly focus on a small, but not negligible risk of perforation and/or adjacent organ injury.<sup>2</sup> Beyond that, special caution is warranted for specific localizations, such as resection of appendiceal lesions, translating into high appendicitis risk. By contrast,

bleeding complications are uncommon and mostly occur in the short-term course in the wound phase, unlike the presented report in the granulation phase at post-procedure day 112, albeit minor, representing an as yet unreported ultra-delayed post-FTRD bleeding.<sup>3</sup>



**FIGURE 1** Minor oozing from granulation tissue 112 d post-FTRD resection of a rectal adenoma recurrence with the clip still attached to the rectal wall

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## ETHICS STATEMENT

This article does not contain any studies with human participants and/or animals.

## CONFLICT OF INTEREST

None declared.

## AUTHOR CONTRIBUTION

VZ, clinical care, drafting and finalization of the manuscript.

## DATA AVAILABILITY STATEMENT

Data available on request due to privacy/ethical restrictions.

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