ACG CASE REPORTS JOURNAL

VIDEO | ENDOSCOPY

# Successful Closure of a Large Rectal Perforation Secondary to an Unusual Foreign Body Using Endoscopic Clip and Loop Technique (King Closure)

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**KEYWORDS:** rectum; perforation; clip; loop; endoscopy; foreign body

## CASE REPORT

A 62-year-old man, known diabetic and schizophrenic, presented in surgical emergency with complaints of left lower abdominal pain and per-rectal bleeding for 1 day. There was an alleged history of insertion of a foreign body (cucumber) per-rectally. There was no history of fever, abdominal distension, or postural symptoms. On examination, his vitals were stable with no abdominal guarding, rigidity, or rebound tenderness. There was a spontaneous expulsion of the cucumber along with blood while passing stools in the emergency. The X-ray of the abdomen was unremarkable, and contrast-enhanced computed tomography of the abdomen revealed symmetrical mural thickening of the anorectal region with a contained perforation (Figure 1). A multidisciplinary team decided on endoscopic management of rectal perforation, as there were no evident signs of generalized peritonitis or frank perforation/collection. Colonoscopy revealed a large circumferential rectal ulcer, with adhered blood clots. On closer examination after cleaning, a segment of the ulcer showed visible muscle fibers with suspicious perforation (Figure 2). We decided to proceed with the closure of this deeper defect, and considering the irregular nature of the defect, a clip-and-loop technique (King closure) was chosen (Videos 1 and 2). The apex of a detachable loop (For Detachable loop: Leo Medical Co. Ltd., Changzhou, Jiangsu province, China) was first fixed to one edge of the defect using a rotatable clip (Resolution; For Rotatable clip: Resolution, Boston Scientific, Marlborough, MA). Subsequently, multiple clips were used to garland the loop around the defect margin. Finally, the loop was tightened to close the

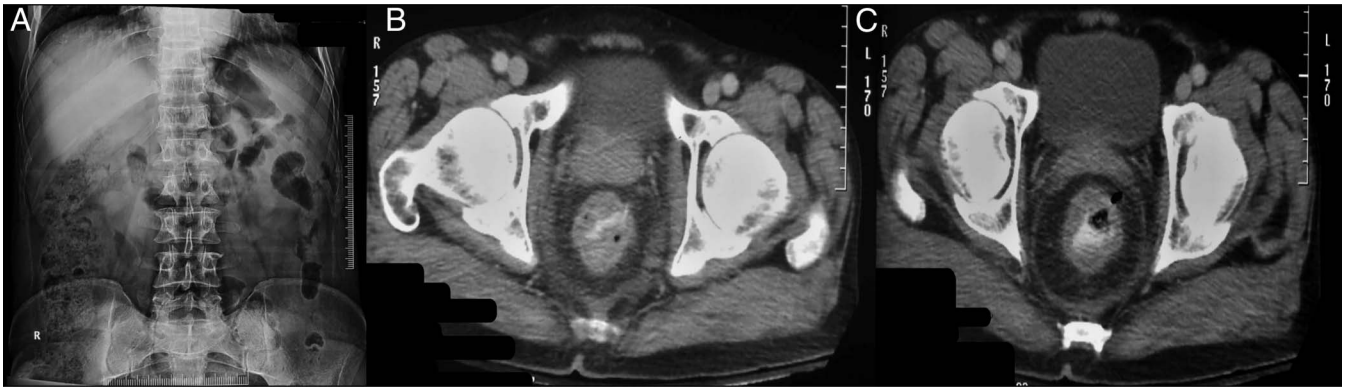


**Figure 1.** (A) X-ray of the abdomen did not reveal any retained foreign body with no signs of perforation. Right colon showed mottled appearance suggestive of retained fecal matter, (B) symmetrical thickening of anorectal region (maximum 1.1 cm; 4.7 cm length), along with (C) contained perforation in rectum.

*ACG Case Rep J* 2025;12:e01678. doi:10.14309/crj.0000000000001678. Published online: April 16, 2025

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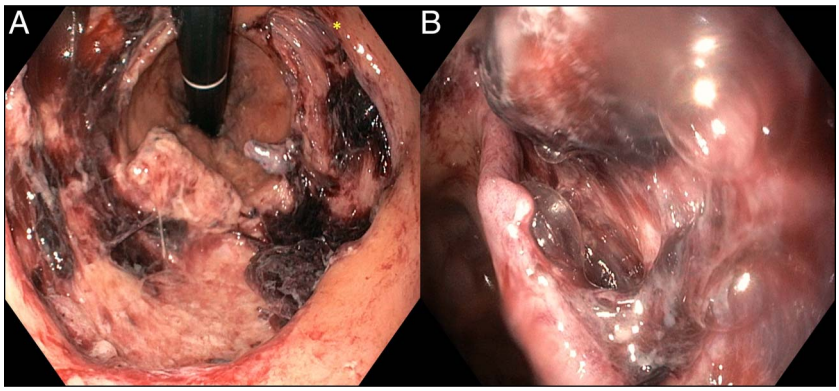


**Figure 2.** (A) Retroflexed view of anorectal region revealed a large irregular rectal ulcer occupying 80%–90% of circumference, with adherent blood clots. Multiple areas of superficial ulceration noted with an area of deeper defect with visible muscle fibers with suspicious perforation (yellow asterix). (B) Closer look at the site of deeper defect revealed visible muscle fibers.

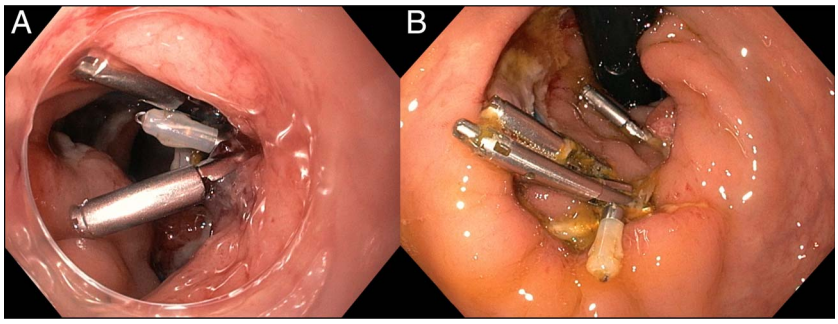


**Figure 3.** (A) Immediate postprocedure look of the clips approximated together in a purse-string manner to close the rectal perforation. (B) Postprocedure day 3 revealed clips intact with complete approximation of the site of perforation. In addition, no bleeding was visualized.

defect in a purse-string manner. Three days postprocedure, sigmoidoscopy revealed clips intact with complete approximation of the site of perforation (Figure 3). Contrast study was done after 1 week did not reveal any leak, and the patient was discharged (Figure 4). Sigmoidoscopy performed after 2 weeks revealed a near-complete healing of the large ulcer, no site of perforation or clips, with a mild luminal narrowing (Figure 5).

Anorectal foreign bodies are a common emergency presentation. Endoscopic management can be attempted if

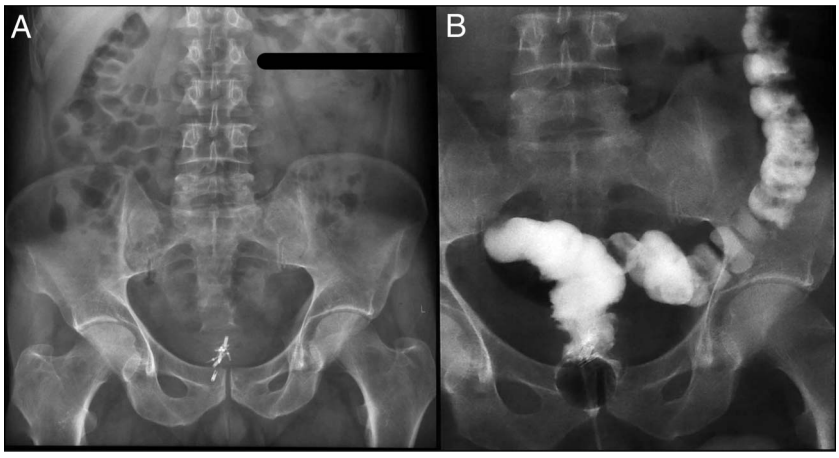


**Figure 4.** (A) Postprocedure X-ray revealed the intact clips approximated together. (B) Contrast study on day 7 postprocedure revealed no signs of leak with clips intact.

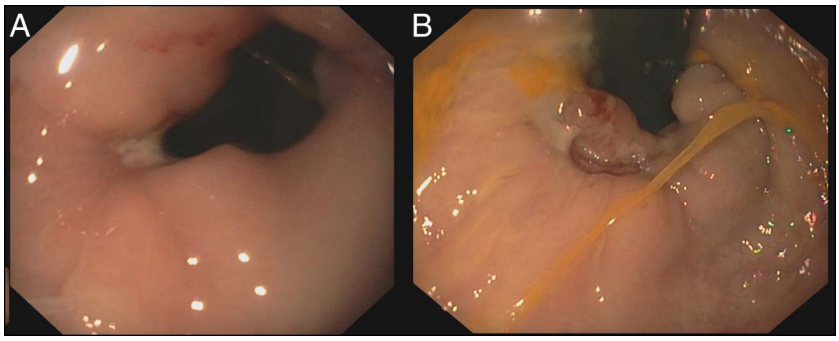


**Figure 5.** (A) Sigmoidoscopy after 2 weeks postprocedure revealed mild luminal narrowing along with (B) near-complete healing of the large rectal ulcer, with no site of perforation or clips.

there are no signs of peritonitis. For smaller defects, through-the-scope or over-the-scope clips are preferred,[1] but for larger defects (>3 cm), with irregular margins, clip-and-loop technique can be used with excellent postprocedure outcomes.[2,3]

## DISCLOSURES

Author contributions: J. Dhar: patient management, first draft of the article, acquisition, analysis and interpretation of data, final approval of the manuscript; D. Srinu: acquisition of data, analysis and interpretation of data, critical revision of the manuscript, final approval of the manuscript; A. Kumar: acquisition of data, analysis and interpretation of data, critical revision of the manuscript, final approval of the manuscript; I. Laroiya: acquisition of data, analysis and interpretation of data, critical revision of the manuscript, final approval of the manuscript; J. Samanta: conception and design, patient management, performed the procedure, acquisition of data, analysis and interpretation of data, critical revision of the manuscript, final approval of the manuscript. All authors approve the final version of the manuscript. J. Samanta is the article guarantor.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received January 26, 2025; Accepted March 18, 2025

## REFERENCES

1. Kumar N, Sachan A, Muktesh G, Kochhar R, Samanta J. Successful closure of a rare cause of tracheoesophageal fistula using an over-the-scope clip. *ACG Case Rep J.* 2022;9(10):e00880.
2. Ryu JY, Park BK, Kim WS, et al. Endoscopic closure of iatrogenic colon perforation using dual-channel endoscope with an endoloop and clips: Methods and feasibility data (with videos). *Surg Endosc.* 2019;33(4):1342–8.
3. Katsinelos P, Lazaraki G, Chatzimavroudis G, Zavos C. Closure of an iatrogenic rectal perforation with the endoloop/clips technique in a purse-string fashion. *Ann Gastroenterol.* 2014;27(3):264.