

## Endoscopic Band Ligation: A Safe And Effective Treatment For Active Diverticular Bleeding

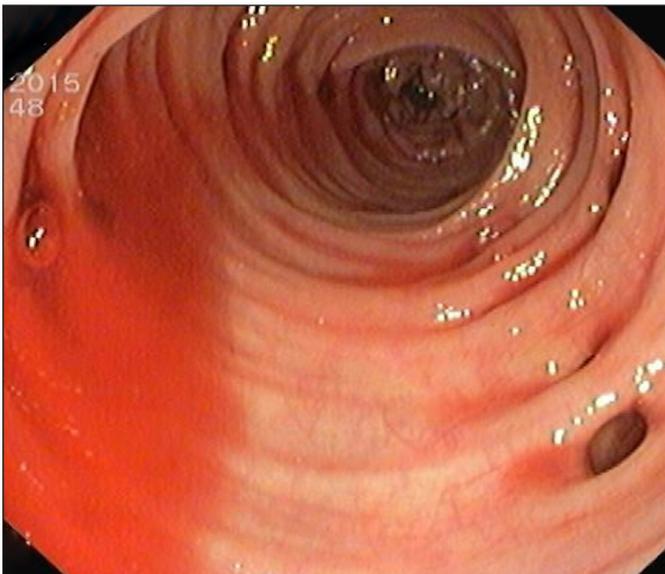
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### Case Report

An 84-year-old female with hypertension and end-stage kidney disease on dialysis was admitted for sudden and massive hematochezia, hypovolemic shock, and severe anemia (hemoglobin 6.9 g/dL). A full colonoscopy with ileoscopy revealed bright red blood through the entire colon and multiple diverticula in the descending and sigmoid colon (Figure 1). After several passages and water irrigation, a diverticulum with active bleeding was identified at 40 cm from the anal verge. After marking the bleeding site with an endoclip, the colonoscope was removed (Figure 2). A gastroscope (GIF-Q165, Olympus®, Center Valley, PA) with a conventional band-ligator device (Speedband Superview Super, Boston Scientific®, Marlborough, MA) attached to the tip was used to suction and invert the bleeding diverticulum (Figure 3). An elastic band was released around its neck, achieving immediate hemostasis (Figure 4). Colonic tattooing was performed near the inverted diverticulum. In 3-month follow-up, no rebleeding or complications were reported. Video 1 shows the complete procedure.

Diverticular hemorrhage is the most common cause of lower gastrointestinal bleeding in adults. Diverticular bleeding resolves spontaneously in most cases, and the endoscopic diagnosis is usually presumptive. Recently, new endoscopic techniques have been developed to improve recognition of the bleeding diverticula and to achieve adequate hemostasis. Endoscopic band ligation (EBL) has been proposed as a safe and effective endoscopic treatment with a high success rate ( $\geq 93\%$ ) and with no complications reported to date.<sup>1-3</sup> A recent study concluded that EBL was superior to clipping, as it presented a lower early rebleeding rate (6% vs 33%), and has been recommended as the first-line therapy in diverticular bleeding.<sup>4</sup>



**Figure 1.** Bright red blood and multiple diverticula on the descending colon.



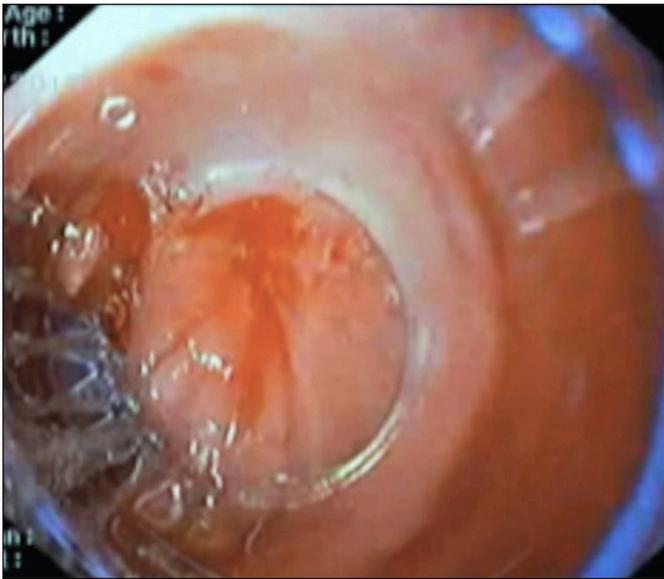
**Figure 2.** Endoclip placed next to the bleeding diverticulum.

*ACG Case Rep J* 2016;3(2):77-78. doi:10.14309/crj.2016.3. Published online: January 20, 2016.

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**Figure 3.** Bleeding diverticulum before suction and ligation with the band-ligator device attached to the tip of the endoscope.

**Video 1.** Endoscopic band ligation of an actively bleeding diverticulum. Watch the video: [http://s3.gi.org/media/links/Marques\\_Video.mp4](http://s3.gi.org/media/links/Marques_Video.mp4)

## Disclosures

Author contributions: S. Marques wrote the manuscript and is the article guarantor.

P. Barreiro and C. Chagas edited the manuscript.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received August 23, 2015; Accepted October 13, 2015



**Figure 4.** Bleeding diverticulum everted after successful band ligation.

## References

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