



Endoscopic treatment of internal hemorrhoids by use of a bipolar system

Shaffer R. S. Mok, MD, MBS, Harshit S. Khara, MD, Amitpal S. Johal, MD, Bradley D. Confer, DO, David L. Diehl, MD, FACP, FASGE

Hemorrhoids occur in 4% of the population and are identified in 39% to 45% of colonoscopies.¹ Internal hemorrhoids have been categorized further according to the Banov classification, which has grades I to IV. Although grades III and IV have typically been managed surgically, grades I and II can be treated by endoscopic means.¹⁻³

Numerous endoscopic methods have been described to treat internal hemorrhoids, but these techniques are fraught with high rates of postprocedural pain.³⁻⁶ The described technique for hemorrhoidal therapy is a bipolar system that uses a novel anoscope with built-in illumination and a consistent compression apparatus (Figs. 1 and 2). This allows for stable energy delivery, which causes lower rates of collateral damage and, therefore, less postprocedural pain.

This video (Video 1, available online at www.VideoGIE.org) demonstrates appropriate patient selection,

positioning, equipment, setup, and procedural nuances necessary for obtaining success with this bipolar system (Figs. 1-6). Specifically, we emphasize various techniques

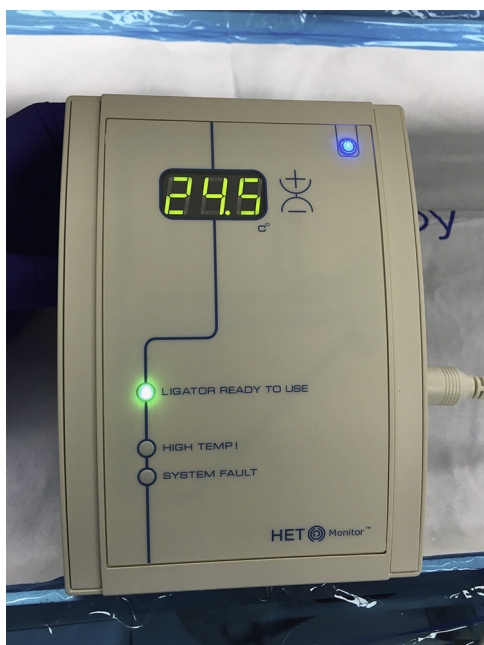


Figure 1. Bipolar system: visible bipolar device platform with active blue light (*upper right corner*), signifying power-on status and green light (*mid-left*), with power into electrocautery system.

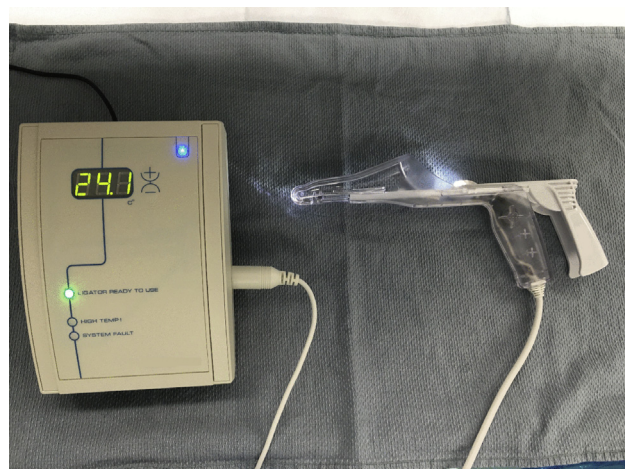


Figure 2. Speculum and bipolar system: visible bipolar system (*left*) and speculum with built-in illumination, bipolar energy delivery system, and handle that controls tissue approximation (*right*).



Figure 3. Equipment: 2-inch tape (*left*), hemorrhoidal forceps (*upper right*), through-the-scope grasping forceps (*lower right, left-most*), surgical lubricant (*lower right, right-most*).

Written transcript of the video audio is available online at www.VideoGIE.org.



Figure 4. Proper installation of bipolar system: cord from bipolar device placed into uppermost bipolar portion of electrocautery system.



Figure 5. Electrocautery setting for bipolar system. Visible monitor reveals bipolar setting of electrocautery system at effect 1, 8 W.

that can be implemented for proper tissue apposition of the hemorrhoidal cushions with the bipolar probe.

A 33-year-old woman presented with blood per rectum with straining. The patient underwent a colonoscopic examination, which identified 2 grade I hemorrhoids in the right anterior and posterior cushions and 1 grade II hemorrhoid in the left lateral cushion, with a hypertrophied anal papilla. No additional bleeding lesions were seen throughout the colon.

She then underwent the bipolar procedure to treat her symptomatic hemorrhoids. Using a through-the-speculum grasper to allow for tissue apposition, we delivered electrocautery energy using a bipolar current to each of the hemorrhoidal cushions (Figs. 3-6). Postprocedural assessment demonstrated appropriate energy delivery. Follow-up evaluation revealed absence of symptoms, and endoscopic inspection at 1 month showed resolution of hemorrhoids.

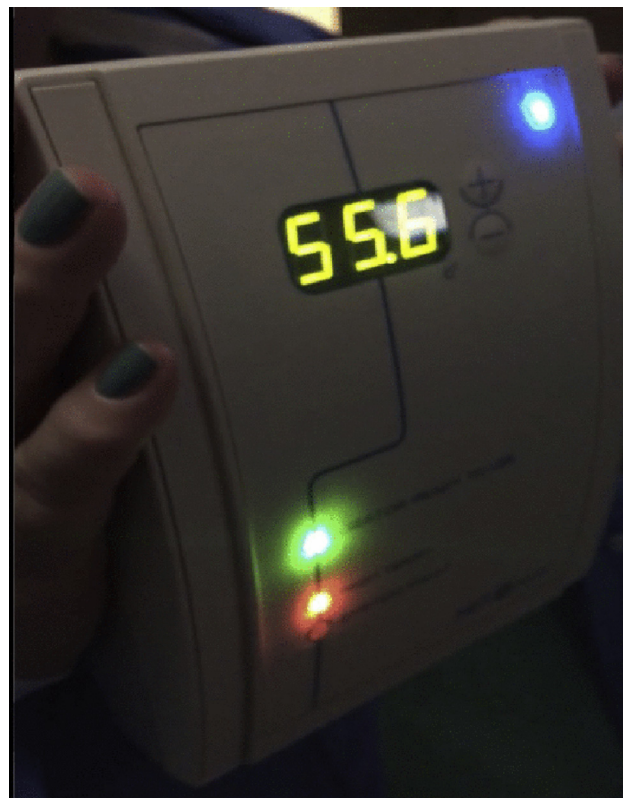


Figure 6. Bipolar system high-temperature alarm. Visible bipolar system with red light (lower left) indicating above-target temperature reached, accompanied with audible alarm.

Endoscopic treatment of internal hemorrhoids with this bipolar system was safe and effective. There are numerous variations of this endoscopic technique, all of which are useful in achieving clinical success.^{7,8}

DISCLOSURE

Dr Khara is a consultant for Medtronic-Covidien. Dr Jobal is a consultant for Boston Scientific. Dr Diehl is a consultant for Boston Scientific and Olympus. All other authors disclosed no financial relationships relevant to this publication.

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Department of Gastroenterology and Hepatology, Division of Interventional Endoscopy, Geisinger Medical Center, Danville, Pennsylvania, USA.

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