

## Hemorrhoids—Office Management and Review for Gastroenterologists

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### Abstract

Symptomatic hemorrhoids and anal fissures are very common problems. This article provides a review of the anatomy and physiology of the anorectum along with a discussion of the diagnosis and treatment of hemorrhoids and the commonly associated matters of anal sphincter spasm and fissures. The various office treatment modalities for hemorrhoids are discussed, as are the specifics of rubber band ligation (RBL), and a strategy for the office treatment of these problems by the gastroenterologist is given. The CRH O'Regan System™ is a technology available to the gastroenterologist that provides a safe, effective, and efficient option for the non-surgical treatment of hemorrhoids in the office setting.

### Keywords

Hemorrhoids, anal fissure, rubber band ligation, CRH O'Regan System™

**Disclosure:** Mitchel Guttenplan is Medical Director of CRH Medical Products Corporation, the manufacturer of the CRH O'Regan System™. Robert A Ganz is a consultant to and holds equity in CRH Medical Products Corporation.

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Diseases of the anorectum, including hemorrhoids and anal fissures, are very common. The care of these entities is typically left to general and colorectal surgeons. However, it is important for gastroenterologists, surgeons, and primary care physicians alike to be able to accurately diagnose these problems and offer a rational, effective treatment plan.<sup>1</sup> The gastroenterologist is uniquely positioned to offer care for these diseases and, in doing so, to provide more comprehensive and cost-effective treatments to patients without the need for referrals or costly and often debilitating surgical procedures.

This article will review the anatomy, pathophysiology, and office-based treatment of hemorrhoids and some of the associated complications in the hope of helping to develop effective, efficient treatment protocols that should be easy to incorporate into gastroenterology practice.

### The Problem

Symptomatic hemorrhoids have historical references dating back thousands of years.<sup>2</sup> The exact incidence of symptomatic hemorrhoids is very difficult to establish, as many sufferers do not seek medical care for their problems while others attribute any anorectal symptoms as being secondary to hemorrhoids. It is estimated that approximately 10 million US citizens suffer from hemorrhoids, making the prevalence rate approximately 4.4%.<sup>3</sup> It is also estimated that 50% of adults will suffer from hemorrhoids by the time they reach 50 years of age. The National Institutes of Health noted that in 2004 the diagnosis of hemorrhoids was associated with 3.2 million ambulatory care visits, 306,000 hospitalizations, and two million prescriptions in the US.<sup>4</sup>

Experience also makes it clear that hemorrhoid sufferers frequently have additional anorectal issues that may both confuse the diagnosis and interfere with the ultimate resolution of their problems. Awareness and proper management of these confounding issues is key to a successful treatment outcome. Treatment strategies addressing these issues are presented below.

### Anatomy and Physiology of the Anorectum

The rectum, extending from its junction with the terminal sigmoid colon to its junction with the anus, is lined with mucosa that is relatively insensitive. The anus, on the other hand, is lined with anoderm, which is a modified squamous epithelium that is richly innervated with sensory nerves. The anal canal is approximately 4cm in length, and it runs from the verge to a point at the proximal aspect of the levator-sphincteric complex.<sup>5</sup> The junction between the anoderm and rectal mucosa, or the dentate line, is approximately 2cm from the anal verge and is a major anatomic point when considering the treatment of hemorrhoids and fissures (see *Figure 1*).

Internal hemorrhoids are cushions of fibrovascular tissue located just proximal to the dentate line. There are typically three major cushions residing in the left lateral, right anterior, and right posterior positions; minor cushions are located between these locations. The vascular component of these cushions includes direct arteriovenous communications, mainly between branches of the superior and middle hemorrhoidal arteries, and the superior, inferior, and middle rectal veins, with some contribution from the terminal branches of the inferior hemorrhoidal arteries.<sup>6,7</sup> These cushions are 'suspended' by muscular and connective tissue passing

through the internal anal sphincter and are considered to be important in the maintenance of rectal continence, contributing 15–20 % of the resting pressure of the anal verge.<sup>6,8</sup> These cushions are also felt to protect the sphincter mechanism during defecation and help to allow for complete closure of the anus, particularly during a Valsalva maneuver.<sup>9</sup>

### Etiology and Pathophysiology of Hemorrhoids

While hemorrhoidal cushions are normal structures, they are rarely mentioned until issues arise, and then the term is meant as a pathologic process. The pathogenesis of 'hemorrhoids' is not completely clear, but contributing factors have been suggested, including a lack of dietary fiber, chronic straining, spending too much time on the commode, constipation, diarrhea, pregnancy, and family history.<sup>10</sup>

Others have discussed the role of pelvic floor dysfunction, particularly as it relates to elevated anal sphincter pressures, which have been demonstrated in patients with symptomatic hemorrhoids; however, it is not clear whether these changes are the cause or the result of the hemorrhoids.<sup>11–13</sup> With this in mind, it is strongly felt that to achieve the best results in our patients, addressing both the hemorrhoids and any suspected sphincteric issues is necessary.

The underlying problem behind the development of hemorrhoids seems to be the breakdown of the underlying support structure of the cushions, leading to venous distension, dilation of the arteriovenous junctions, progressive prolapse of the involved tissue, mucous deposition on the perianal skin (and, thus, itching), friability, bleeding, and, sometimes, fecal soiling. Internal hemorrhoidal tissue is covered by rectal mucosa (proximal to the dentate line) and so is insensate. For this reason, it is recommended to look for co-existent complicating issues in patients with hemorrhoids when pain is a significant complaint. These secondary factors may include anal fissure, solitary rectal ulcer syndrome, and a range of issues dealing with pelvic floor dysfunction (sphincter spasm, pelvic dyssynergia, proctalgia fugax, and so on). It should be noted that hemorrhoids are not simply 'dilated veins' and are not typically related to portal hypertension, as this entity produces rectal varicies rather than hemorrhoids.<sup>14</sup>

### Classification and Grading of Hemorrhoids

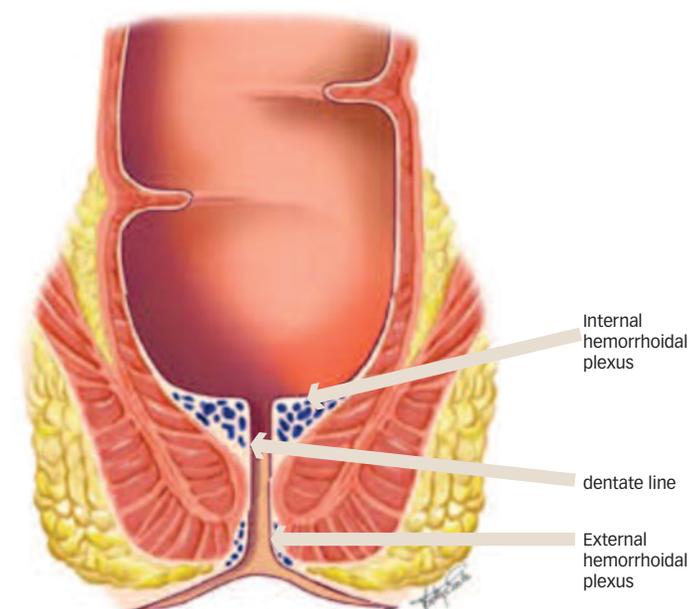
Hemorrhoids can be categorized by their location as well as by the size and degree of prolapse of the involved tissue. Internal hemorrhoids are located proximal to the dentate line, external hemorrhoids are distal to it, and 'mixed' hemorrhoids arise from both the internal and external plexi along with their anastomotic connections<sup>15</sup> (see *Figure 2*). Banov<sup>16</sup> and others helped to develop a grading system for hemorrhoids based on the degree of prolapse during defecation:

- grade I: no prolapse, grade I hemorrhoids only bleed;
- grade II: hemorrhoids prolapse during defecation, then they spontaneously reduce;
- grade III: hemorrhoids must be manually reduced; and
- grade IV: hemorrhoids are not reducible; incarcerated internal hemorrhoids.

### Anal Fissures and Anal Sphincter Spasm

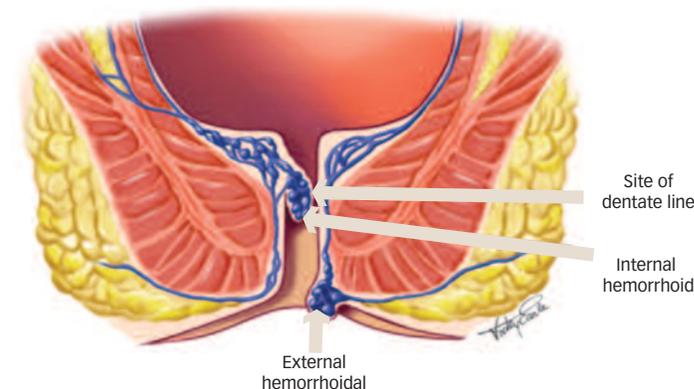
No discussion regarding hemorrhoids would be complete without a mention of anal sphincter spasm and anal fissures. A very large

**Figure 1: Normal Anatomy of Anorectum**



*Courtesy of Iain Cleator, MD, Vancouver, BC, Canada.*

**Figure 2: Demonstration of Internal and External Hemorrhoids**



*Courtesy of Iain Cleator, MD, Vancouver, BC, Canada.*

percentage of hemorrhoid patients have co-existent spasm, as patients with hemorrhoids tend to have a higher resting sphincter pressure than controls.<sup>7</sup> The sphincter pressures in these patients tend to return to normal after a surgical hemorrhoidectomy.<sup>7</sup> Internal hemorrhoids are typically painless, so when these patients complain of pain, fissures are often present as well. Most patients, along with many physicians, attribute any perianal complaint to hemorrhoids when there are often other issues present (see below). In a large number of patients, anorectal problems are multifactorial, with the most frequent combination of issues involving hemorrhoids along with spasm and fissures.

Anal fissures are elliptical tears in the anal canal distal to the dentate line.<sup>17</sup> They typically form in the posterior midline, with a smaller percentage occurring in the anterior midline. In patients with fissures, defecation can

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produce significant pain and often bleeding as well. Fissures that are seen away from the midline may well be indicative of another process, such as Crohn's disease, anal neoplasm, or sexually transmitted disease.

There are several potential causes of anal fissures. Constipation or passage of a large or hard bowel movement may initially cause a tear. As the severity and chronicity of the fissure increases, a secondary spasm of the internal sphincter muscle occurs, and this spasm prevents the edges of the fissure from healing.

Localized ischemia is also felt to play a role in the development of fissures. Morphometric<sup>18</sup> along with manometric and perfusion studies<sup>19</sup> demonstrate a relative lack of anodermal blood flow in the posterior midline of the anus, making this area both more susceptible to injury and more resistant to healing. The small terminal branches of both inferior rectal arteries pass through the internal sphincter, and these branches have minimal or no contact at the posterior midline in 85 % of cases.<sup>18</sup> Schouten demonstrated that circulation in this compromised area is further diminished in the setting of an elevated internal sphincter pressure, a hallmark of chronic fissure disease.<sup>19</sup>

## Clinical Evaluation

### History

As stated earlier, most patients will ascribe any anorectal symptoms to 'hemorrhoids', so a thorough history and physical examination is important to help determine whether the symptoms are attributable to hemorrhoids, secondary to other common ailments (fissures, fistulae, condylomata, pruritus ani, prolapse, polyps, carcinoma, hypertrophic papillae, etc.), or to a combination of problems.<sup>13,20</sup> Characterizing the patient's symptoms, including the 'color and character of any bleeding, temporal relationships between symptoms and defecatory patterns, exacerbating factors, and factors related to relief of symptoms,'<sup>20</sup> will help greatly in the diagnosis and treatment of these patients.

### Visual Examination

A physical examination should include a detailed inspection of the perianal, perineal, and pilonidal areas for signs of rash, abscess, fistula, pilonidal disease, external hemorrhoidal changes, sentinel tags, and so on, along with a careful digital anorectal examination.<sup>13,20</sup> The anal portion of the digital examination should be emphasized, as it is commonly felt that the bulk of pathology typically overlooked with a routine rectal exam is pathology found between the introitus and the dentate line.

### Digital Examination

In addition to looking for mass lesions, areas of inflammation, tenderness, fluctuance, and so on, characterization of the anal sphincters is an important aspect of the evaluation, as signs of sphincteric spasm or an active or partially healed fissure will influence treatment decisions. The digital examination is an anal as well as a rectal examination. The examination may be performed in the prone, jack-knife, Sims', or left lateral decubitus position with both hips and knees bent; the latter is the authors' preference. A careful digital examination will characterize the tone of the sphincters as well as whether or not the internal sphincter has separated from the external sphincter, exaggerating the intersphincteric groove. This 'double sphincter sign' may well indicate the presence of co-existent internal sphincter spasm,

which should be addressed in symptomatic patients. Signs of a partially healed fissure include the presence of a fine thickening or scar in the posterior midline, or a rough area in the otherwise smooth anoderm.<sup>21</sup> These areas may not be well visualized by visual examination or even anoscopy, but these clinical findings typically indicate the presence of residual inflammation and lead to treatment for fissures based on clinical grounds.

## Endoscopic Examination

Anoscopy is the most versatile tool to evaluate the anorectum<sup>22</sup> and, depending on a host of factors, flexible sigmoidoscopy or colonoscopy may well also be warranted in these patients. It should be noted that a colonoscopic examination of the rectum, while the scope is retroflexed and the rectum is insufflated, has significant limitations. Insufflation and stretch of the rectal walls tends to hide the presence of internal hemorrhoids as the lumen is distended and the mucosa 'flattened out'. Aspirating a bit of air during this portion of the colonoscopic examination will help to identify internal hemorrhoids in these patients, but the combination of anoscopy with a colonoscopic examination can give the clinician valuable information that is difficult to obtain otherwise.

## Non-surgical Options for Treatment of Symptomatic Hemorrhoids

### Medical Management

Medical management of hemorrhoids can be effective in patients with minimal to mild hemorrhoidal symptoms. Behavioral as well as dietary modifications are recommended. Patients should be urged to not neglect the first urge to defecate, to avoid spending a prolonged time on the commode, and to avoid straining during defecation.<sup>13</sup> The addition of fiber (such as psyllium) and fluid to the diet, along with soothing soaks or sitz baths, is recommended.<sup>20</sup>

Many over-the-counter agents are available to help provide symptomatic relief of minor symptoms. The efficacy of these agents has yet to be proved in clinical trials,<sup>7</sup> but they are ubiquitous throughout the developed world. When these conservative measures fail, non-operative methods are recommended.

### Sclerotherapy

Sclerotherapy is one of the oldest forms of non-operative treatment for hemorrhoids, first described in 1869 by Morgan.<sup>1</sup> A sclerosant is injected into the submucosa at the base of the hemorrhoid through an anoscope using a spinal needle. The technique is suitable for smaller hemorrhoids. Complications that occur when the sclerosant is injected too deeply include abscess, paraffinoma,<sup>7</sup> and urinary retention; post-sclerotherapy reports of impotence also exist.<sup>1,24</sup>

## Bipolar Diathermy, Direct Current Electrotherapy, Infrared Coagulation, and Heater Probe

Bipolar diathermy, direct current electrotherapy, infrared coagulation, and heater probe all rely on the coagulation, occlusion, and obliteration or sclerosis of the hemorrhoidal vascular pedicle above the dentate line. The area of tissue damage sloughs, leaving an ulcer that eventually forms fibrotic tissue at the treatment site.<sup>1</sup> The energy sources for these technologies differ and each has its strengths and weaknesses. Infrared coagulation was first described by Neiger in 1979,<sup>25</sup> and involves the

conversion of infrared radiation into heat within the treated tissue. Its primary benefit is to patients with smaller bleeding hemorrhoids.<sup>13</sup> Bipolar diathermy uses an electrical current to generate heat and hence coagulation of the treated tissue, while the direct current device requires prolonged application of this energy to the base of the hemorrhoidal complex.<sup>26</sup> A 'heater probe' has been used to coagulate the intended tissue as well.<sup>27</sup>

### Cryosurgery/Lord's Procedure

These techniques are mentioned together only to dismiss them. Cryosurgery was noted to be followed by a significant amount of pain and a foul-smelling discharge along with a prolonged recovery in several series.<sup>17,15</sup> Lord<sup>28</sup> recommended a manual stretching of the anus in an effort to lessen sphincteric pressure. The technique gained some popularity after its initial introduction in 1968, but has been found to lead to complaints of incontinence and has since lost favor in the US.<sup>29</sup>

### Rubber Band Ligation

The most common office procedure for the treatment of symptomatic internal hemorrhoids is rubber band ligation (RBL), which is used in up to 80 % of such patients.<sup>20,30</sup> Blaisdell first described a ligation technique using a pre-tied silk suture in 1958,<sup>31</sup> and Barron modified the method by using rubber bands in 1963.<sup>32</sup> Barron recommended banding a single column of hemorrhoids at a session, separating the visits by several weeks. Ligation causes ischemic necrosis of the banded tissue followed by tissue sloughing. An ulcer forms at the site of the previous band and the resultant inflammatory reaction and scarring help re-fix the mucosa to the underlying tissue. RBL patients do not need bowel preparation, sedation, or narcotics. Additionally, these patients have virtually no recovery period and can return to work immediately.

RBL is a simple, inexpensive procedure that effectively treats grade I–III hemorrhoids.<sup>13</sup> One disadvantage of the procedure was the need for two operators using the older banding technologies;<sup>15</sup> however, this problem has been overcome by the development of single-use, disposable devices that do not require an assistant.<sup>15,33–36</sup> Success rates for RBL as high as 99 %<sup>35</sup> have been reported, and aggressive use of this procedure minimizes the need for surgical hemorrhoidectomy.<sup>13</sup> Overall, RBL is associated with a very low complication rate (<2 %),<sup>13</sup> with complications including significant bleeding, vasovagal responses, and very rare occurrences of sepsis. Reports of pain vary widely and are addressed below, along with technical recommendations to minimize the problems that have been noted with RBL.

### Comparisons of Available Treatments

The literature contains a multitude of papers discussing and comparing the various techniques mentioned above. Meta-analyses,<sup>37</sup> retrospective studies,<sup>38</sup> and comprehensive reviews<sup>1,7,13,15,20,33,36</sup> have all compared and contrasted the competing procedures, arriving at differing positions as to the relative merits of each. Salvati, in his lecture to the American Society of Colon and Rectal Surgeons in 1998, citing the report of MacRae and McLeod<sup>37</sup> concluded "that rubber band ligation should be recommended for Grade I to Grade III internal hemorrhoids and that patients treated with rubber band ligations were less likely to require further therapy as compared with those treated with injection or infrared coagulation."<sup>29</sup>

**Figure 3: CRH O'Regan System™**



*Courtesy of CRH Medical, Vancouver, BC, Canada.*

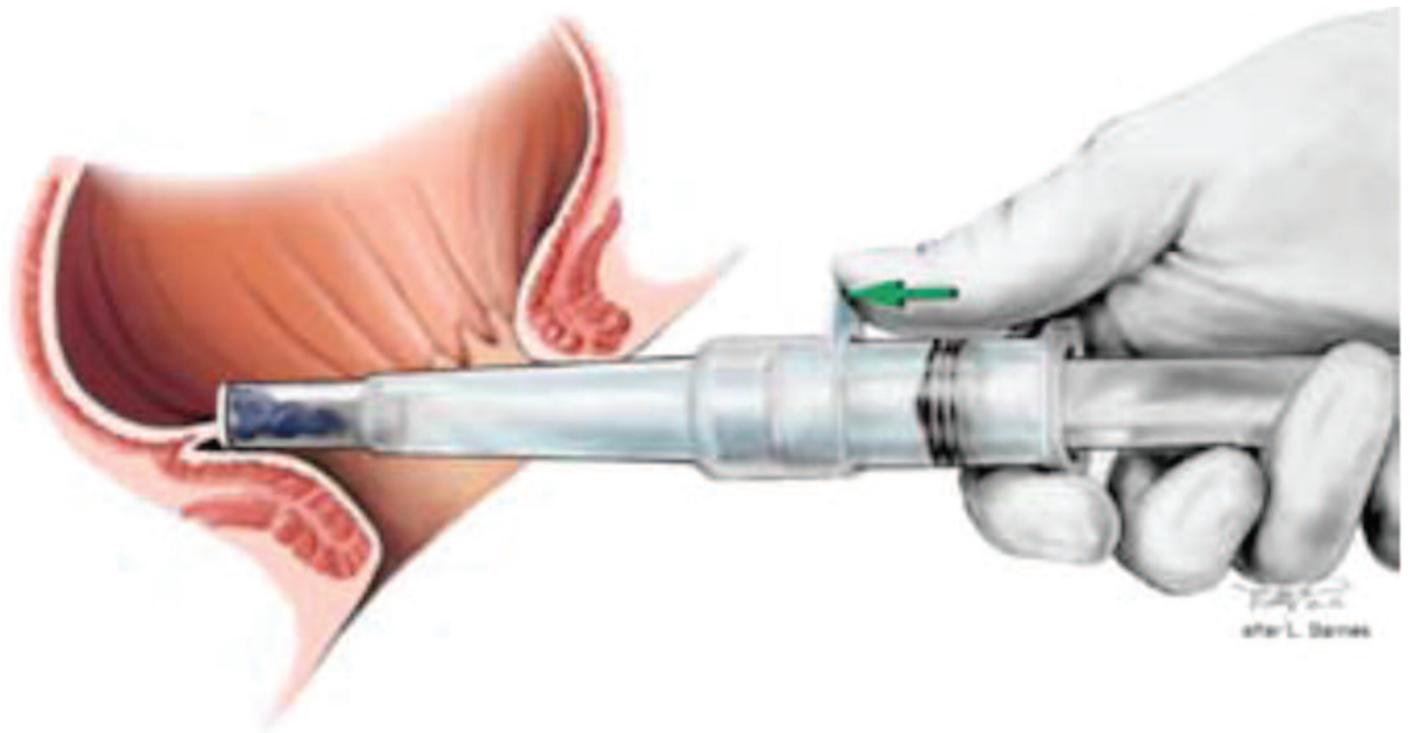
### Office-based Hemorrhoid Treatment Using Rubber Band Ligation

RBL has been shown to be a very versatile modality in the treatment of hemorrhoids for the vast majority of patients. A review of the literature reveals any number of RBL techniques and strategies to most effectively, efficiently, and safely treat these patients.<sup>33</sup> The literature cited above is fairly consistent in its support for the efficacy of RBL in the treatment of hemorrhoids, with short-term success rates of up to 99 %,<sup>35</sup> two-year success rates of up to 95 %,<sup>35</sup> and long-term success rates of up to 80 %.<sup>40</sup> One of the few potential criticisms of the procedure is that post-banding pain can be an issue, with rates of post-banding pain varying from less than 1 %<sup>35</sup> to 50 %.<sup>43</sup> There is also significant variation in findings such as vasovagal episodes and urinary retention. The various options in terms of RBL are discussed below, helping to form a rational approach to these patients in the office setting.

### Where to Band?

The three hemorrhoidal cushions tend to reside in the left lateral, right anterior, and right posterior positions. The tissue to be banded must be proximal to the dentate line to avoid pain, but the recommended distance varies from author to author. Distances have been stated from 'above the dentate line' to 'at least 2cm proximal', to it.<sup>1,15,36,41</sup> Many of the studies reviewed did not specify an exact relationship between the band and the dentate line, but in those studies where the author was familiar with the techniques used, the bands were placed 2cm or further from the dentate line. The pain statistics in these trials were among the lowest and success rates were comparable with those in any of the studies reviewed.<sup>35,44</sup>

**Figure 4: Rubber Band Ligation Using 'Touch' Technique**



*Courtesy of Iain Cleator MD, Vancouver, BC, Canada.*

## How Much to Band?

There are two aspects to this topic, both of which are controversial. The first concerns how much tissue is required within the band for a satisfactory result to be obtained. The various technologies used employ different mechanisms to capture the tissue to be banded, from grasping clamps to various suction devices.<sup>33</sup> There are also fairly nebulous descriptions in terms of what tissue needs to be entrapped in the band; typically, the recommendation is to place the band around the "base" of the hemorrhoid,<sup>36</sup> which anoscopically can be quite a large area in patients with more advanced disease. Dr Iain Cleator's technique (Vancouver, BC, Canada) uses a digital rectal exam immediately post-banding to check the adequacy and location of the band. In situations where a patient is experiencing immediate post-banding discomfort, one can then digitally free up some of the banded tissue to render the patient pain-free.<sup>35</sup> Dr Cleator's results demonstrate that this does not compromise clinical outcomes, indicating that a banding involving the proximal aspect of the hemorrhoidal cushion, entrapping mucosa/submucosa without involving the muscularis, will give excellent results while minimizing pain for the patient. A recent abstract provides further support based on Dr Cleator's experience with 20,286 ligations in 6,690 patients, with 83 % of patients experiencing complete relief and only 13 % experiencing partial or total recurrence after a mean follow-up period of 42 months.<sup>39</sup>

The next controversial point involves the number of hemorrhoids to be treated in a single session. Barron, in his initial presentation, found that by banding one column of hemorrhoids at a time, his patients experienced less pain and fewer problems in the post-banding period.<sup>32</sup>

These advantages were felt to outweigh the disadvantage of requiring multiple sessions separated by a period of several weeks. Other authors have echoed this sentiment,<sup>13,35</sup> but some have challenged this practice in an effort to see whether multiple bandings could be employed in an attempt to treat all of the disease in a single session.<sup>34,41,45</sup> Multiple-banded patients experienced a significant increase in pain, need for analgesics, urinary symptoms, vasovagal symptoms, and swelling and edema compared with those having only one column banded.<sup>45</sup> An attempt to minimize this increased incidence of pain by injecting the banded tissue with local anesthetic was found to be unsuccessful.<sup>46</sup> Based upon the above, the current recommendations are that a single column of hemorrhoids be treated in a given session, and that the band should be placed at least 2cm proximal to the dentate line.

## What to Band with?

As mentioned above, the earliest ligators were metallic instruments that were used anoscopically and required two operators to perform the procedure.<sup>33</sup> Later instruments incorporated suction to allow for a single operator. More recently, disposable devices have been developed for the same purpose.

Transendoscopic procedures use similar devices to those used for ligation of esophageal varices.<sup>20,47,48</sup> When comparing the endoscopic approach with a transanal approach, Kann concluded that "flexible fiberoptic visualization offers no additional benefit over rigid anoscopy. Thus, we feel that [the endoscopic approach] is an inappropriate and costly misuse of technology."<sup>20</sup>

The current authors use the CRH O'Regan System™ (CRH Medical, Vancouver, BC, Canada), a disposable RBL device that is unique in that it does not require wall suction (see *Figure 3*) and can be used with an anoscope or using a 'touch' technique without a scope<sup>35</sup> (see *Figure 4*). The device allows for a quick (one minute or less), safe, efficient, and effective procedure with minimal complications and no need for special equipment in an office setting.<sup>30,35,36,44</sup> There even is a latex-free alternative to the standard latex band for use in patients with latex sensitivities.

### Who Should Band?

Historically, most non-operative care of hemorrhoids has been in the domain of surgeons, and few gastroenterologists have cared for these problems.<sup>49</sup> It has also been noted that many gastroenterology fellowship programs do not provide comprehensive training in these topics. This is all despite the fact that many patients with anorectal complaints are referred to gastroenterologists for evaluation and treatment,<sup>50</sup> and many more are found to have hemorrhoidal disease during a work-up for other problems. Osborn demonstrated that gastroenterologists using the CRH O'Regan System were able to safely and effectively treat their hemorrhoid patients after an in-service training session. The group, reporting on its early experience with the technology, demonstrated a 94 % success rate and minimal complications.<sup>44</sup> Clearly, gastroenterologists should play a prominent role in the care of these patients.

### What Else Should We Do for Our Patients?

This section reflects the personal opinions of the authors. The accompanying issues of hemorrhoid patients must be addressed to optimise outcome. These issues include the underdiagnosed entities of anal fissure and spasm. A tight internal sphincter, a double sphincter sign, or subtle abnormalities of the anoderm in the anal midline should lead to a diagnosis of spasm and/or fissure and the appropriate treatment. Treating these problems along with symptomatic hemorrhoids will offer patients the optimal treatment for their problems.

Dietary fiber and behavioral modification along with topical medications are offered as a first-line treatment. Topical medications include nitroglycerin ointment or a calcium channel blocker such as nifedipine or diltiazem.<sup>51,52</sup> Nitroglycerin is discounted by some because of the frequency of headaches when taking the medication, often given at a concentration of 0.2–0.3 %. In our practice, we use 0.125 % nitroglycerin (compounded as one part 2 % nitroglycerin ointment with 15 parts petroleum base), placing a pea-sized amount into the anal verge three times a day. We have seen very good results with this compound, and very few complaints of headaches, allowing for its use without difficulties. We recommend continuing the medication for a length of time after symptomatic improvement to allow for complete healing of the fissure in

an attempt to minimize recurrence, and we caution patients to administer the medication while lying down in case they do become light-headed and to avoid erectile dysfunction medications because of cross-reactivity.

If the dietary and lifestyle modifications and topical ointments are ineffective in these patients, consideration of medical sphincterotomy using botulinum toxin will be given, as will a surgical consultation for a lateral internal sphincterotomy. A complete discussion of the treatment of anal fissures is beyond the scope of this article, but Orsay's group have provided an excellent presentation of this information.<sup>51</sup>

### Surgical Approach to Hemorrhoid Disease

A detailed review of the surgical options available to hemorrhoid patients is also beyond the scope of this article, but a few points should be made. Surgical hemorrhoidectomy is the most effective treatment for hemorrhoids, particularly grade III and IV hemorrhoids; however, it should be reserved for those few patients who do not respond to or cannot tolerate a non-surgical approach. With this in mind, authors have reported that 80–99 % of patients with symptomatic hemorrhoid disease can be successfully treated without surgery.<sup>13,35</sup> This recommendation is based on the increased pain, disability, and complications that accompany a surgical approach.<sup>40</sup> In practice, the very few patients requiring surgery include patients with grade IV hemorrhoids that cannot be reduced using various techniques, those with severe external disease, and those who cannot tolerate a lesser procedure.

### Conclusions and Recommendations

Office management of hemorrhoids is very safe and effective, and quality care can (and should) be given from gastroenterologists and surgeons alike. RBL can be performed in the office safely and simply, affording excellent clinical results. One hemorrhoidal column should be treated at a setting, with most patients requiring three treatments separated by at least two weeks. The interval between procedures allows for healing of the post-banding ulcer and minimizes complications and risks. The bands should be placed at least 2 cm proximal to the dentate line and patients should be evaluated and treated for signs of sphincter spasm and anal fissure, both of which are frequently noted in these patients. Surgical hemorrhoidectomy is needed very infrequently, and should be avoided if possible because of the complications/pain/disability associated with it.

Hemorrhoidal disease can be managed definitively in an office setting. The technology discussed in this article provides safe and effective therapy that is easy to learn and institute without any capital investment. This care can and should be provided by gastroenterologists as it is a natural extension of their practice.

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