Procedure for prolapse and hemorrhoids

Background

Procedure for prolapse and hemorrhoids (PPH), also known as stapled hemorrhoidopexy, is a minimally invasive surgical technique to treat hemorrhoids. Clinical trial results comparing PPH to conventional hemorrhoid surgery have shown that patients who have the PPH procedure experience:

- less pain
- a quicker recovery period
- fewer overall complications
- the need for less postoperative pain medication

Hemorrhoids are one of the most common ailments for men and women alike, affecting more than half the population at some point in their lives. Everyone has veins within the anus that tend to stretch under pressure, somewhat like varicose veins in the legs. When these veins swell, they are called “hemorrhoids.” One set of veins is inside the rectum (internal hemorrhoids), and another is under the skin around the anus (external hemorrhoids).

PPH works by reducing the prolapse (enlargement) of hemorrhoidal tissue. In the procedure, the prolapsed tissue is pulled into a specially designed circular stapler device that allows the excess tissue to be removed while the remaining hemorrhoidal tissue is stapled back to its correct anatomical position.

The stapling technique markedly reduces swelling by disrupting the hemorrhoidal artery blood flow, thereby reducing inflow to the hemorrhoids themselves. In addition, restoring the internal hemorrhoids to their normal position prevents prolapse and alleviates patients’ symptoms.

The PPH procedure results in less pain than traditional surgical procedures because it is performed above the “pain” line, or dentate line, inside the anal canal. The advantage is that this hemorrhoid treatment method affects few nerve endings, whereas traditional procedures are performed below the dentate line, affecting many sensitive nerve endings.

Candidates for PPH include patients with the following:

- Second-degree hemorrhoids after failure of multiple rubber band ligation
- Third- and fourth-degree hemorrhoids
- Rectal mucosal prolapse
Surgeons who perform PPH use the Proximate® HCS hemorrhoidal circular stapler and accessories, which are a set of instruments that facilitate delivery of a circumferential, staggered, double row of staples, while simultaneously resecting a segment of compressed soft tissue. The instruments are manufactured by Ethicon Endo-Surgery, Inc., a Johnson & Johnson Company, based in Cincinnati and have been approved by the Food and Drug Administration.

**Involved specialties**  
Colon and rectal surgeons, proctologists, and general surgeons

**Positions of societies and academies**  
The American Society of Colon and Rectal Surgeons (ASCRS) publishes the core subject document *Hemorrhoids*. In the document, there is a section on the stapled hemorrhoidectomy procedure, which explains that over the past 10 years, it has been developed as an alternative to standard hemorrhoidectomy mainly because of the pain associated with traditional hemorrhoid surgery.

Stapled hemorrhoidectomy involves transanal, circular stapling of redundant anorectal mucosa with a standard circular stapling instrument. There is continued debate about the mechanism by which it relieves symptoms. As hemorrhoids are thought to be redundant fibrovascular cushions, most treatments reduce blood flow and remove redundant tissue.

Stapled hemorrhoidectomy is thought to work by a similar mechanism. Redundant mucosa are drawn into the instrument and excised within the “stapled doughnut.” Additionally, mucosal and submucosal blood flow is interrupted by the circular staple line. No incisions are made in the somatically innervated, highly sensitive anoderm, which theoretically results in significantly less postoperative pain.

The technique for stapled hemorrhoidectomy involves preparing patients as they would be prepared for a standard hemorrhoidectomy, with partial or complete mechanical bowel preparation. General and spinal anesthesia have both been prescribed, but local anesthesia can also be used. Patients may be positioned prone, in lithotomy, or in the Sim’s position, depending upon the surgeon’s preference.

After thorough examination of the anal canal and perianal tissues, a pursestring suture is placed. The pursestring should be 3 cm.–4 cm. above the dentate line and include only mucosa
and submucosa. Suture “bites” should be close together, as large gaps will allow redundant mucosa to evade the stapler, resulting in persistent hemorrhoids. The pursestring can be placed by standard suture technique or, alternatively, a purse-string instrument can be used.

A modified circular stapling instrument is then introduced, fully opened into the anal canal, and the suture tightened between the anvil and shaft of the instrument. This should draw distal redundant mucosa proximally into the jaws of the stapler. After tightening the stapler, a finger is placed transvaginally in females to ensure that the anovaginal septum has not been included within the stapler. The stapler is then fired and removed.

Following this, the staple line is inspected for gaps and particularly for bleeding points, which should then be oversewn.

Positions of other interested parties

The American Board of Colon and Rectal Surgery (ABCRS) issues certification in colon and rectal surgery to candidates who meet all of its general requirements and professional qualifications and successfully complete the examinations.

General requirements
Candidates must meet the following ABCRS general requirements:

- Appear personally and submit to the required examinations
- Limit the majority of their practice to colon and rectal surgery
- Deliver, if required, sufficient case reports to demonstrate proficiency in colon and rectal surgery
- Submit, if requested, a bibliography of published papers and books
- Satisfy requirements in regard to moral and ethical fitness and show conformity with the Statements on Principles of the American College of Surgeons and the Principles of Medical Ethics of the American Medical Association

Professional qualifications
Candidates must have the following professional qualifications:

- Completion of an Accreditation Council for Graduate Medical Education (ACGME)-approved residency program in colon and rectal surgery, following completion of general
surgical training in an ACGME-approved residency program
- A current, valid, registered, full, and unrestricted license to practice medicine in a state, territory, or possession of the United States or a Canadian province, and maintenance of license throughout the certification process
- Successful completion of the qualifying examination of the American Board of Surgery (ABS) before being admitted to the ABCRS written examination
- Certification by the ABS before being admitted to the ABCRS oral examination

The certificate granted by the ABCRS does not confer privilege or license to practice colon and rectal surgery, but is evidence that a physician’s qualifications for specialty practice are recognized by his or her peers. It is not intended to define the requirements for membership on hospital staffs, gain special recognition or privilege for its diplomates, define the scope of specialty practice, or state who may or may not engage in the practice of the specialty.

According to Anthony Senagore, MD, MBA, MS, FACS, FASCRS, professor and chairman of the department of surgery at the Toledo-based Medical University of Ohio, physicians who perform the PPH procedure should have full surgical privileges. They include colon and rectal surgeons, proctologists, and general surgeons who are experienced in anorectal procedures and have an understanding of anorectal anatomy.

Before performing PPH, surgeons should complete a formal training course offered by Ethicon Endo-Surgery, the maker of the stapling device used in the procedure. “The course should include a didactic presentation, which describes the indications, the contraindications, and the procedural steps for the procedure,” says Senagore. “Then physicians should be proctored in two cases by a surgeon who is fully trained in PPH. The company has enough people on their circuit to come and help with initial cases.”

Senagore says although PPH may seem like an easy procedure to perform, it is also easy to do improperly—particularly by practitioners who are not sufficiently trained. In order of importance, surgeons must understand that it is critical for them to do the following when they perform PPH:

- Place the pursestring suture at the correct height
• Place the anvil safely above the suture line
• Inspect the staple line to look for dehiscenses (separations) that should be repaired

“The surgeon should also look for bleeding,” he says. “If there is bleeding, it should be oversewn with a figure-of-eight suture.”

Senagore says most physicians who perform anorectal surgery feel comfortable with PPH after they have done five cases. For maintaining competence, he says five cases per year is reasonable.

**CRC draft criteria**

**Minimum threshold criteria for requesting core privileges in performing PPH**

- Basic education: MD or DO
- Minimum formal training: Successful completion of an ACGME/American Osteopathic Association (AOA)-accredited postgraduate training program in general surgery, followed by formal training in colon and rectal surgery. Applicants must also demonstrate successful completion of a course in PPH surgery that included a didactic presentation and performance of two cases under the supervision of an experienced PPH surgeon.
- Required previous experience: Applicants must be able to demonstrate that they have successfully performed at least five PPH procedures in the past 12 months.

**References**

A letter of reference should come from the director of the applicant’s PPH training program. Alternatively, a letter of reference regarding competence should come from the chief of colon and rectal surgery or the chief of surgery at the institution where the applicant most recently practiced.

**Reappointment**

Reappointment should be based on unbiased, objective results of care, according to the organization’s existing quality assurance mechanisms.

Applicants must be able to demonstrate that they have maintained competence by showing evidence that they have successfully performed at least five PPH procedures annually over the reappointment cycle.

In addition, continuing education related to hemorrhoids and to PPH should be required.
For more information

For more information regarding this procedure, contact:

American Society of Colon and Rectal Surgeons
85 West Algonquin Road, Suite 550
Arlington Heights, IL 60005
Telephone: 847/290-9184
Fax: 847-290-9203
Web site: www.fascrs.org

American Board of Colon and Rectal Surgery
20600 Eureka Road, Suite 600
Taylor, MI 48180
Telephone: 734/282-9400
Fax: 734/282-9402
Web site: www.abcrs.org

Ethicon Endo-Surgery, Inc.
4545 Creek Road
Cincinnati, OH 45242
Telephone: 513/337-7000
Web site: www.pphinfo.com

Medical University of Ohio
Department of Surgery University Medical Center
Dowling Hall, 2nd Floor
3065 Arlington Avenue
Toledo, OH 43614-5807
Telephone: 419/383-3572
Fax: 419/383-3057
Privilege request form
Procedure for prolapse and hemorrhoids

To be eligible to request clinical privileges in performing PPH, an applicant must meet the following minimum threshold criteria:

- Education: MD or DO

- Minimum formal training: Successful completion of an ACGME/AOA–accredited postgraduate training program in general surgery, followed by formal training in colon and rectal surgery. Applicants must also demonstrate successful completion of a course in PPH surgery that included a didactic presentation and performance of two cases under the supervision of an experienced PPH surgeon.

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  In addition, continuing education related to hemorrhoids and to PPH should be required.

I understand that by making this request, I am bound by the applicable bylaws or policies of the hospital and hereby stipulate that I meet the minimum threshold criteria for this request.

Physician’s signature: _______________________________________________

Typed or printed name: _______________________________________________

Date: _______________________________________________________________
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