A 15- to 35-minute minimally invasive procedure is the new gold standard for hemorrhoidectomy, according to American and European experts in the field. The procedure, known as PPH (procedure for prolapse and hemorrhoids) stapled hemorrhoidectomy, combines hemorrhoidal devascularization and repositioning to return the veins to the anal canal.

“This year, this is the revolutionary new procedure in the United States,” Gary Hoffman, MD, clinical faculty member in general and colorectal surgery, Cedars-Sinai Medical Center, Los Angeles, told General Surgery News after moderating a live PPH telesurgery at the 2003 annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons. “PPH stapled hemorrhoidectomy will supplant the traditional open operations in patients with symptomatic grades 3 and 4 hemorrhoids, because it results in a tremendous reduction in postoperative pain, and in a rapid return to work and to activities of daily living.”

Roberto Bergamashi, MD, PhD, has performed PPH stapled hemorrhoidectomy for six years. He told General Surgery News that while he agrees the procedure is very effective and safe, he cautions surgeons must be thoroughly trained on simulators before they perform the procedure on patients.

“People who have not been trained correctly can cause very serious complications, such as cutting the anal sphincter muscle by accidentally taking it into the stapler,” said Dr. Bergamashi, who moved recently from Norway to become director of the Division of Minimally Invasive Surgery, Allegheny General Hospital, Pittsburgh. “But if you know how to do it, you’ll be fine.”

A Word of Caution

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Skeptics Turned Believers

Italian surgeon Antonio Longo, MD, professor of surgery, University of Palermo, Italy, proposed use of the PPH in 1998 (Proc. 6th World Congress of Endoscopic Surgery, Bologna, Italy: Monduzzi Editore; 1998:777-784). By 2002, 250,000 PPH surgeries had been performed worldwide, but only 12,600 have been done in the United States since the introduction of the procedure here last year. Steven Wexner, MD, chief of staff, Cleveland Clinic Florida, Weston, has written several articles about PPH stapled hemorrhoidectomy. He was skeptical about the procedure at first, but after he performed it he was “converted” to enthusiastic support of the procedure (Tech Coloproctol 2001; 5[3]: 165-168).
operative in colon and rectal surgery (J Am Coll Surg 2003; 196:95-103), Dr. Wexner and Dana Sands, MD, colorectal surgeon at the Cleveland Clinic Florida, noted that Marc Singer, MD, University of Illinois, Chicago, and his colleagues have performed PPH on 68 patients without any complications more serious than urinary retention (Dis Colon Rectum 2002; 45:360-369). Moreover, 99% of these patients reported complete recovery by the seventh postoperative day. Drs. Wexner and Sands also observed that four recently published prospective, randomized trials of stapled hemorrhoidectomy involving more than 400 patients have demonstrated that it is “safe, effective and associated with considerably less pain than conventional excisional hemorrhoidectomy.”

“Now I am participating in a national prospective, randomized trial comparing PPH to traditional closed [Ferguson] hemorrhoidectomy,” Dr. Wexner told General Surgery News. “The results will be presented at the upcoming meeting of the American Society of Colon and Rectal Surgeons in New Orleans in June.”

How the Procedure is Done

A surgeon begins the PPH stapled hemorrhoidectomy by inserting a circular anal dilator and obturator into the anal canal and then securing the dilator in place with four sutures. The surgeon then inserts a PPH anoscope into the obturator. Next, he places a circumferential purse-string suture of 2-0 Monocryl on a UR-6 needle 4 cm proximal to the dentate line. The surgeon opens a PPH stapler and places its anvil across the purse string. The stapler is then closed and fired; it is held closed for two minutes to improve hemoostasis. Prior to firing the stapler in a female patient, the surgeon places a gloved finger in the vagina to ensure the vaginal mucosa and rectal-vaginal septum are not trapped within the jaws of the closed stapler. The surgeon then opens and removes the stapler.

Next, the surgeon reinserts the anoscope into the anal canal to evaluate hemoostasis. Any small bleeding areas, which rarely occur, can be oversewn with a figure-eight 2-0 chromic suture. The surgeon removes the anoscope and obturator and covers the area with a light dressing. The hemorrhoidal doughnut is removed from the stapler and sent to the pathologist for permanent section.

The hemorrhoidal stapler and other instruments for PPH are sold in a package and are manufactured by Ethicon Endo-Surgery, Inc., a division of Johnson & Johnson.

Candidates for PPH are those patients with symptomatic third- and fourth-degree hemorrhoids who desire definitive treatment, or those with symptomatic second-degree hemorrhoids who specifically wish to undergo definitive therapy. There are no contraindications for the procedure. However, careful attention must be paid to those patients on anticoagulant therapy and those patients having severe cardiopulmonary disease, as for any operation.

Dr. Hoffman has systematically reviewed the data from the 67 cases he has performed to date. The results indicate that 24 hours after PPH stapled hemorrhoidectomy, patients’ average pain scores are 1.7 on a Visual Analogue Scale of 10, compared to 7 following traditional hemorrhoidectomy. Moreover, while patients’ pain requires four to six weeks to resolve after the traditional procedure, pain scores plunge to zero within one or two days of having a PPH stapled hemorrhoidectomy.

“In fact, although a score of 1.7 is an average after 24 hours, most patients have no pain at all immediately after surgery,” says Dr. Hoffman. “I also have had no complications, and no patients have been returned to the OR for bleeding. I perform most of my procedures on Friday mornings on an outpatient basis—and all patients return to work by Monday morning.”

The Patient’s Perspective

Harold Katz, an accountant with a busy practice in Los Angeles, told General Surgery News he had suffered discomfort from third-degree hemorrhoids for 35 years, but refused to have surgery. Then he heard about the PPH approach from Dr. Hoffman.

“I had great faith in him, and so I said, ‘Go for it.’ I would tell anyone who suffers from hemorrhoids to go for it. There is no reason to suffer any more,” said Mr. Katz. “There is slight discomfort for a couple of days after the surgery, but absolutely no pain in any way. I had it done on a Tuesday at 4 in the afternoon, and I went to work on Wednesday. I had some discomfort sitting on my chair, so I took Thursday off, and Friday I went back to my normal schedule.”

Most surgeons must perform approximately eight of these procedures before they feel completely comfortable with it, noted Dr. Hoffman.

“Surgeons are skeptical of this procedure until they see the results, and then they are converted instantly,” he said. “In the past, with traditional hemorrhoidectomy, patients telephoned me all night because they were out of their minds with pain. Now patients are home and pain-free on the afternoon of the procedure—and my phone no longer rings at night.”

—Rosemary Frei, MSc