Painless Office-Based Treatment of Hemorrhoids
Utilizing Ultroid D.C. Therapy

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Abstract
Multiple treatment methods for hemorrhoids over the years suggest that there has not really been a standard of care established in the treatment of this very prevalent disease. Hemorrhoid disease is an extremely common condition affecting millions of people worldwide, and causing painful, embarrassing, and debilitating symptoms in those afflicted. Most patients have been reluctant to seek help over fear that the treatments themselves are painful, as well as a lack of knowledge by both the general population and professional colleagues that there are now much better therapy options available to treat this disease. Ultroid Technologies Inc. has developed a non invasive treatment for hemorrhoids which is painless, office based, highly effective, and is FDA cleared to treat grades 1-4 (I–IV) internal hemorrhoids.

Text
The differential diagnosis in a patient presenting with rectal pain, bleeding, or mass should include anal or rectal carcinoma, hemorrhoids, and anal fissures or perirectal abscesses. Other pathology associated with rectal pain and bleeding are the inflammatory bowel diseases ulcerative colitis and Crohn’s disease. The workup in patients presenting with rectal pain or bleeding begins with a general history and physical exam with emphasis on a digital rectal exam and hemoccult guaiac testing. The physician then performs anoscopy followed by proctoscopy or colonoscopy if indicated. The American Cancer Society (ACS) recommends that average risk adults should begin colorectal cancer screenings at age 50, using one of the following screening options: (1) annual fecal occult blood test; (2) flexible sigmoidscopy every 5 years; (3) colonoscopy every 10 years; or (4) double-contrast barium enema every 5 years. These screening methods are effective in reducing mortality from colorectal cancer.

The Merck Manual defines hemorrhoids as “Varicosities of the veins of the hemorrhoidal plexus, often complicated by inflammation, thrombosis, and bleeding.” They are classified based on anatomic origin. The internal hemorrhoids are redundant mucous membrane tissue of the anal canal located above the dentate line (junction of the external anal canal with rectal mucosa). External hemorrhoids are located below the dentate line, beneath the dermis. Internal hemorrhoids are mapped by their location and graded based on the degree of protrusion into the anal canal. Grade 1 (I) hemorrhoids project into the lumen of the anal canal. Grade 2 (II) prolapse through the anal canal after straining, and reduce spontaneously. Grade 3 (III) are prolapsed and must be manually reduced. Grade 4 (IV) are prolapsed outside the anus, non-reducible and may be affixed to the outside of the anal canal. Autonomic and cranial X (vagus) nerves innervate the region above the pectinate line, and the mucosa here is relatively insensitive to painful stimuli. Somatic (sensory) nerves supply the skin and mucosa below the pectinate line which accounts for the sensitivity of this region to painful stimuli. The most common symptoms of hemorrhoids are pain, bleeding, fecal seepage with cellulitis and itching, or
the sensation of fullness in the anal canal following a bowel movement. Some of the etiologies of this disease are obesity, chronic constipation and associated straining, prolonged sitting or standing, lifting weight for any reason without proper breathing technique, the impingement of the gravid uterus on lower extremity and pelvic venous return, COPD with chronic coughing, prostatism, and prolonged toilet reading. All of which have the common denominator of severely increasing pelvic venous congestion.

Even though the current literature concerning hemorrhoidal therapy commonly lists constipation as a causative factor, curiously after performing over 14,000 non-invasive internal hemorrhoidal procedures over the past 5 years, we have found the complete opposite to be the reality. Swollen internal hemorrhoids actually cause the symptom of constipation and excessive straining because it requires a significantly increased forceful valsalva maneuver to increase intra-abdominal pressure and to effectively “push” the stool through the swollen hemorrhoidal tissue that in essence has narrowed the rectal canal lumen. It is very common for patients that are undergoing our staged procedure program to verbalize that they are, “No longer constipated”, following usually the initial three treatments. In addition the worrisome symptom of “ribbon stools” is also rapidly alleviated. In the hemorrhoid patient with this symptom of constipation, it is indeed a classic “catch 22” situation in that the more the patient strains by valsalva to pass stool, the greater the pelvis venous congestion becomes (i.e. decreased venous return), the more hemorrhoidal tissue swelling occurs and therefore the more difficult it becomes to pass stool.

Numerous modalities have been used to treat hemorrhoids in the past. Laser therapy, infrared coagulation, rubber band ligation, and stapling are a few of the techniques used to effectively destroy the blood supply to the base of the hemorrhoidal tissue (pad). This causes subsequent necrosis, scarring and connective tissue reattachment of the tissue to the rectal wall, and resolution of the disease. However, of all the current modalities only Ultroid and IRC have no published significant morbidity or mortality associated with their use. A study was published in 1989 comparing three non operative techniques for treating internal hemorrhoids*. The results from infrared coagulation, heater probe coagulation, and Ultroid d. c. therapy were compared in approximately 800 patients. This study concluded, as does our own patient results, that Ultroid therapy was associated with far fewer complications of periprocedural discomfort or postprocedural bleeding than the other two procedures. Further, good results were obtained in the treatment of third degree and some fourth degree hemorrhoids using Ultroid therapy.

The Ultroid d. c. therapy works by the application of a very small direct electrical current (up to 16 mAmps) to the base of the hemorrhoid viewed through a slit anoscope via an insulated stainless steel probe. This causes the biochemical dissociation reaction involving NaCl and H2O. These elements recombine into NaOH (lye) and HCL (acid) to gradually shut off the blood supply at the base of the hemorrhoid. This causes a physiological disappearance of the diseased tissue through cell breakdown and gas exchange over 7 to 14 days.
In conclusion, it is our opinion that, the Ultroid therapy will most likely become the initial treatment of choice for grades 1-4 (I- IV) hemorrhoids for the following reasons: (1) the procedure can be done safely and painlessly in the family practitioners office without the need for anesthesia and with very rapid symptom relief for the patient; (2) there is no pretreatment requirement of bowl prep or fasting; (3) the patient can resume normal daily activities the day of treatment with no need for analgesics; (4) the procedure is very simple, classified as non-invasive, and with a success rate of over 90%; (5) the procedure is FDA cleared and has outstanding nationwide CPT codes established.

References:
* Berman Irwin R., M.D., F.A.C.S. Non-Surgical Remedies for Management of Internal Hemorrhoids: Relative Values Presented at the Sixth Annual Course in Colon & Rectal Surgery Sansum Medical Research Foundation March 3, 1989. Santa Barbara, California