THE SUBMUCOSAL MORCELLATION OF HEMORRHOIDS Lt. Comdr. H. B. Benjamin, M.C.-V(S), U.S.N.R.

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BECAUSE NEARLY EVERYONE has hemorrhoids in one form or another and because complications of hemorrhoids and hemorrhoidectomies may be very distressing, oftentimes disabling, we would like to present our preoperative, new surgical technic and postoperative care for your consideration, especially since we are aware of the fact that the methods employed in the early 1800's by the French Surgeons are still in use.¹

Hemorrhoids may occur because of straining at stool; they may follow pregnancy and they are also found in men who suffer from chronic coughs or from prostatic hypertrophy. Another cause of venous stasis is an infiltrating carcinoma of the rectum causing partial obstruction. It is, therefore, important to make a complete physical examination on all patients who present themselves for hemorrhoidal surgery. Since the present war we have seen many young men develop hemorrhoids because of altered diet, nervous tension and lack of proper toilet facilities. It was found that many of the marines and sailors became so afflicted while at the actual battle front. At one station the surgical staff averaged 3–4 hemorrhoidectomies per week, and these on boys in the 17–21 age-group.

Considering that hemorrhoids, either internal or external, are in truth "varicose veins of the rectal area" it is difficult to condone the present-day practice of "clamp and excision." The disease, being one of blood vessels primarily, there is no need for the surgeon to sacrifice large amounts of the rectal mucosa, underlying connective tissue and even muscle. An apt analogy would be to have the surgeon, who, in attempting to cure the patient of varicosities of the lower extremity, merely clamped across the varix, and excised skin, muscle and even nerves.

The present status of hemorrhoidectomy is much the same when so much healthy and uninvolved tissue is sacrificed in order to get at the offending vein. With the removal of such a large block of mucous membrane and adjacent tissue in hemorrhoidectomy, one can, without difficulty, readily explain its complications, namely, stenoses, loss of sphincter control, fissures, abscesses, not to mention pruritus and pain seen in almost every hemorrhoidectomized patient. It is altogether too common that the hemorrhoid patient dreads his operation only because he has been told about the pain and distress suffered by other patients.

Thus, realizing all this, we have attempted to correlate a technic of hemorrhoidectomy which is along anatomic lines and which attempts to preserve a normally functioning rectal tube. The result has been that the common sequelae of hemorrhoidectomy have been reduced to a minimum and the operation itself surprisingly simplified.

Injudicious removal of tissue containing nerve filaments or even vigorous dilatation of the anus is sufficient to so harm the structures supplied by these nerves that incontinency of sphincter, proctitis, pain, and delayed healing may occur.

Therefore, considering anatomic principles, the following method of obliteration of hemorrhoids has been devised by one of the authors (H. B. B.).

Adequate preoperative preparation of the hemorrhoid patient is as important as in any other surgical procedure and contributes directly to satisfactory results, a fact which is many times overlooked. The patient is usually hospitalized the night before, having had previously a thorough physical examination and, may we stress, a complete history. Conditions predisposing to hemorrhoids are especially sought after, such as abdominal tumors, chronic bronchitis, cirrhosis of the liver, etc. Special examination for carcinoma must always be made prior to operation. Dr. Charles Mayo said: "I could win the office of President of the United States on the platform of free finger cots for doctors to do rectals." It is our custom to give the patient a sedative the night before, consisting of a barbiturate to allay any apprehension he might have. The perineum and anus are prepared, and three hours preoperatively the patient receives a soap-suds enema which is followed by a saline colon irrigation to remove any of the irritating qualities of the soap. A light breakfast may be given. We have found that a repetition of the barbiturate is usually sufficient as an immediate preoperative medication; however, the more apprehensive and nervous patients do require sedation with morphine The patient's general condition and mental and scopolamin combinations. make-up are the determining factors.

The anesthetic of choice is caudal block. This is given 20 to 30 minutes before the operation is to be performed. The technic employed is one commonly described; either I per cent novocaine or I per cent metycaine may be used; 30–35 cc. of solution is usually sufficient to insure adequate anal anesthesia. Local infiltration of these solutions has also been utilized with surprisingly good results.

The patient is then ready for operation. Two positions have been used, the lithotomy or Bouie, depending on the operator's choice. Thereafter, the anal area is widely prepared in the usual manner, tincture of merthiolate usually being employed, and then draped with sterile sheets. First and foremost, a careful proctoscopic examination is routinely carried out to visualize the anal canal and to inspect for the possibility of malignancy. This is best done now because of the anesthesia. At the same time, any residual foreign matter may be removed. A vigorous anal dilation is never done. It is felt that this is not necessary and may even be harmful. Many bothersome postoperative sequelae have thus been eliminated by refraining from this stretching.

No evidence of carcinoma having been found, each hemorrhoidal tag is next identified. A small linear incision, perpendicular to the axis of the





rectum, is made with the knife in the skin approximately 3 cm. from the base of the first external hemorrhoid. This incision is usually just outside the pigmented area which surrounds the anus or approximately 1.5 cm. from



FIG. 4.—Composite sketch showing healing stages.

the mucocutaneous border (Fig. 1). Next, the medial edge of the incised skin is grasped with an Allis forceps. Holding the forceps up on the hand, the mucous membrane is dissected free from the hemorrhoid with Mayo

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scissors (both points dull) (Fig. 2). The dissection is then carried in like manner upwards, using the finger in the rectum as a guide until Hilton's line is reached (Fig. 3). This accomplished, the entire diseased hemorrhoidal vessel is morcellated by short bites with the scissors. If clots are present, they are removed. After complete careful morcellation, the scissors are withdrawn and any redundant, excessive mucous membrane is removed by a "V"-shaped excision (Fig. 4). It must be remembered, however, that much of this redundancy will be reduced in the process of healing. A similar procedure is carried out on the remaining hemorrhoidal tags. Thereafter, at the



FIG. 5.—Experimental section showing intact mucosa over operated area. (72 hours postoperative)

discretion of the operator, a nupercaine-gauze pack may be inserted for hemostasis.

Scrupulous attention is also paid to the patient following the operation. On the following morning the nupercaine gauze, if inserted, should be removed. If the patient is unable to void in 12 hours, postoperative catheterization is carried out. Hot witch hazel packs have been found to be very beneficial and these applications should be started the evening of the operation. To be effective these packs must be hot. A cold and clammy pack can be very uncomfortable. Mineral oil, ounces one, by mouth, is given three times a day; fluids are given freely, with a light diet. Hot sitz baths are instituted on the third day.^{2, 3}

The operation being technically so simple, its contraindications are few. Of course, seriously debilitating disease is always investigated and no operative procedure should be carried out in such an instance. A large ulcerated mucosa would make the dissection of the mucous membrane impossible and, thus, the operation impracticable, since its continuity could not be preserved. Thrombosis without ulceration, however, is no contraindication.

In 34 consecutive hemorrhoidectomies treated by this technic, three points were outstanding: (1) Not one of these patients complained of undue pain or discomfort either during the operation or after it. The enema given on the third postoperative day was easily accomplished and normal bowel movements followed, the patients being allowed to go to the toilet. (2) Not one of

these patients suffered distention gas pains, or had to be catheterized. Normal bowel and bladder physiology was almost uninterrupted before and after the operation. (3) The speed of recovery was rapid. Two-thirds of these patients were up and about on the third postoperative day. At the end of one week complete healing had occurred in all and in most it was difficult to ascertain that the patient had had hemorrhoids. Postoperative scars or stenoses were not discernible. Five cases were encountered in which bleeding necessitated the use of rectal pack. The remainder required no packing and frequent examinations of the dressing showed only slight oozing.

In comparing our results with those of the clamp and excision or clamp and cautery methods, we are impressed by the fact that our results showed an absence of discomfort and pain, which made for a much quicker recovery and shorter convalescence. The fact that practically negligible inhibition of urination was found in these patients also was gratifying. The operation itself is anatomically fool-proof, insofar as the sphincter is not invaded, and the anal canal is not forcibly dilated either during or after. The operation not being a technically difficult one, it is relatively safe. The postoperative complications are at a minimum, and the diseased vein is completely obliterated, thus, curing the patient. The patient is further pleased at the reduction of hospitalization and the rapidity with which he is back at work. This operation was developed three years ago and, so far, we have had no recurrences in any of our cases. The patient is visibly as well as clinically cured, and has no complaints, after this type of surgical intervention.

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