INTERNAL AND EXTERNAL HEMORRHOIDS. WITH SPECIAL REFERENCE TO THEIR TREATMENT.*

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I have been requested to address you on the subject of hemorrhoids, viewed so far as possible from the standpoint of making my remarks of value and interest to the general practitioner. Time permits of only a brief synopsis of the subject.

Without making a thorough examination of a given case, no certain diagnosis can be made and no plan of treatment can be carried out with any degree of satisfaction. In most departments of medicine this fundamental principle is carefully observed, but possibly owing to a false sense of modesty on the part of patients afflicted with rectal trouble, some physicians are led to treat such persons without an exploration, either visual or digital, of the affected region. Consequently, it is not an infrequent occurrence for me to see a patient with an external hemorrhoid, greatly aggravated by the vain efforts made to push it within the anus. This illustration will suffice, no doubt, to emphasize the necessity of examining every case of presumed rectal trouble. Such an examination should include not only an ocular inspection of the parts outside the anal canal, but likewise a digital investigation of the rectum. It is only in cases of irritable ulcer of the anus (fissure) that an examination with the finger should be omitted. A rectal examination is not a very pleasant one, either to the practitioner or to the patient, yet without making it the physician's reputation, as well as the patient's health, may suffer.

Assuming, therefore, that attention has been paid to the proper methods to insure the making of a correct diagnosis, we are prepared to consider the variety of hemorrhoids, preliminary to a consideration of the treatment of the individual forms.

EXTERNAL HEMORRHOIDS.

External hemorrhoids are divided into the venous, the cutaneous and the compound.

Venous.—The venous variety occurs in three forms: 1. As a marked varicose condition of the plexus of the external hemorrhoidal veins. 2. As a thrombosis of this plexus. 3. As a clot of extravasated blood, due to a rupture of a varicose vessel. The existence of this last variety is denied by some authorities, but I have seen and operated on a number of such cases sufficient to warrant the classification given.

Cutaneous.—The cutaneous pile consists essentially of a hypertrophy of the skin surrounding the anus. It frequently is the result of a former venous hemorrhoid, a fold of skin being left after the clot has been removed, either by absorption or operation. When uninfamed, it occasions no great inconvenience, but when aggravated by improper diet, irregular habits, uncleanliness, etc., it invariably causes the patient an amount of suffering quite disproportionate to the pathologic appearance.

Compound.—The compound or so-called externo-internal pile is one in which the tumor is not only largely external, but is also intimately associated with an in-

ternal hemorrhoid, and is, therefore, in part, covered with mucous membrane.

INTERNAL HEMORRHOIDS.

Internal hemorrhoids are divided into the varicose, the capillary and the compound or intero-external.

Varicose.—The varicose or venous internal hemorrhoid is the form of tumor most frequently met with in the bowel, and consists of a varicosity of the internal hemorrhoidal veins, with a hypertrophy of the surrounding tissue in which these vessels are embedded.

Capillary.—The capillary or nevoid hemorrhoid consists of a small, raspberry-like arrangement of the arterial capillaries within, or just beneath the surface of the mucous membrane of the rectum. They are the source of frequent hemorrhages due, no doubt, to a covering of a very thin layer of epithelium, which is readily ruptured. They do not protrude and can not be located by digital examination.

TREATMENT OF EXTERNAL HEMORRHOIDS.

The local treatment of these tumors may be considered under the two heads, the operative and the palliative. It is only when these tumors are inflamed that patients suffer marked inconvenience, and find it necessary to consult a physician, and it is at such a time that I believe the best method of treatment is that of removal. If, however, the patient refuses to submit to our judgment in this matter, recourse must be had to local applications for the relief of the suffering incident to the acute inflammatory stage. What we have to say regarding the treatment of piles which are external applies with equal force to all the varieties included under the classification of this form of hemorrhoids.

Operative Treatment.—It is only by this plan that we may effect a radical cure. It may be accomplished by one of three methods, named in the order of our preference: (a) excision, (b) simple incision, and (c) excision and primary suture of the cutaneous edges of the resulting wound.

(a) **Excision** is the mode of treatment now employed by most proctologists for the cure of all the various forms of external hemorrhoids when the patient is seen in the acute stage of the trouble. The operation consists in washing the parts well with the tincture of green soap, alcohol and creolin, so as to render the field of operation as aseptic as possible. The hair is not shaven, as experience has shown that it is unnecessary. Formerly when the hair was removed, its subsequent growth was most annoying to the patient, feeling somewhat as though the vicinity of the anus had been converted into a pin cushion (by no means an empty one). The tumor to be removed is now anesthetized by means of a hypodermic injection of a 2 per cent. solution of the hydrochlorate of cocaine, of which from 10 to 20 minims usually suffice. In connection with the use of local anesthetics, attention is called here to a matter, with which I have had no personal experience, but which justifies note, to-wit: The work done by Dr. Samuel G. Gant of New York City in the use of sterile water anesthesia in the office treatment of rectal diseases.¹

Before removing the needle of the syringe, time is given the solution to permeate the tissues. The pile is next grasped by some suitable instrument, such as a hemostat (sometimes by two, if the hemorrhoid be a large one), and the tumor is rapidly removed in its entirety by means of a pair of scissors curved on the

* Read before the meetings of the Northwestern Medical Society and of the Medical Society of Germantown, Philadelphia, 1904.

1. New York Medical Journal, Jan. 23, 1904.

flat. It is rare that any vessels of size are met with and the ease with which, in this region, a bleeding vessel can retract and contract, obviates any necessity for the use of the ligature. All clots are removed. The resulting wound is now lightly packed with cotton, which is changed several times until most of the bleeding is stopped. The flow of blood is encouraged for a short time so as to get rid of any excess of cocain remaining in the vicinity.

Finally, when active bleeding has ceased the wound is packed with gauze, a 10-grain iodoform suppository is inserted into the rectum, and over the seat of operation is placed a firm pad of gauze and cotton and then a "T" bandage completes the dressing.

(b) **SIMPLE INCISION** requires a similar technic to that described for excision, with the exception of the operative part. This latter is accomplished by catching the parts on either side of the tumor between the thumb and forefinger of the left hand and transfixing its base in the direction of the radiating folds of the anus with a sharp-curved bistoury and cutting outward. Gentle pressure will cause the extrusion of most of the clots; any of them remaining may be picked out with a pair of forceps. The subsequent treatment consists in packing the wound with gauze and then using a similar dressing to that advised in the operation of excision. The main disadvantage of this operation consists in the fact that the skin distension occasioned by the inflamed pile is left, and may subsequently become inflamed or may refill with blood.

(c) **EXCISION COMBINED WITH PRIMARY SUTURE OF THE RESULTING WOUND.**—The essential difference between this method and that of simple excision consists in the close apposition of the wound by carefully buried silk-worm gut, or some similar, suitable material. The advantage of the operation lies in the hope of obtaining primary union. I have practically discarded this method, as the suture tracks are liable to become infected, and I think the mechanical presence of the sutures, together with the constriction they produce, combine to add materially to the annoyance to the patient than when the parts are left to heal by granulation.

The Non-Operative or Palliative Treatment.—This consists primarily in keeping the parts thoroughly cleaned by bathing with water as hot as can be borne and in applying some soothing and astringent lotion during the acute inflammatory stage. Some of the preparations which I have employed with satisfaction are: Ichthyol, 50 per cent., combined with equal parts of lanolin and ung. aquæ rosæ; or a mixture, containing one ounce of the fluid extract of hamamelis; a half-ounce of the fluid extract of hydrastis; a like amount of the compound tincture of benzoin and two drams of the tincture of belladonna. This solution is to be well shaken before using, and is kept in the bottle and placed either in hot water and applied frequently by means of hot compresses to the affected part, or if cold is more agreeable to the patient, then the medicine is surrounded with ice and compresses wrung out of ice water are kept saturated with the mixture and are applied in the same manner as when they are used hot. Another useful mixture is the strong subacetate of lead solution, combined with an equal quantity of the tincture of opium, of which a teaspoonful is added to a wine glassful of cold milk and applied with frequency to the anus. In addition to these measures, the bowels should be freely moved, and a light, easily digested diet, with rest in bed, pre-

scribed. These remedies will, as a rule, cause the inflammatory symptoms to subside within a few days, but usually a thickened tag of skin will remain, which is liable at any time, on the slightest provocation, to become inflamed.

TREATMENT OF INTERNAL HEMORRHOIDS.

With the exception of the nevoid or capillary pile the treatment of these tumors may be discussed under the following classification: (a) Preventive, (b) palliative and (c) operative.

Prior to taking up this part of our subject, it may be well to say a few words regarding the treatment of the capillary hemorrhoid. The safest method of effectually dealing with this condition consists in the use of the electrocautery applied by means of a small electrode. Anesthesia is not essential. Care must be exercised not to cauterize too deeply. A very old and deservedly popular treatment of this form of pile is the use of fuming nitric acid. Care must be exercised not to excite too intense an inflammatory reaction. The pile is caused to protrude into a speculum, is thoroughly dried with cotton on the end of an applicator, and then the acid is applied all over its surface by means of a rod of glass or a stick of wood. Before removing the speculum, which is left *in situ* for three or four minutes, a dossil of cotton is placed over the treated area so as to absorb any excess of the acid.

Caution in the use of the acid is necessary in order to avoid its getting on the cutaneous surface or on the margin of the anus. A good preventive measure against this accident is the smearing of the region named with glycerin or vaselin. One treatment of the acid usually suffices to stop the bleeding, but two or three applications may be required to completely destroy the tumor. These applications may be repeated at intervals of three to seven days.

Preventive Measures.—These consist, to a large extent, in the avoidance of the sedentary habits, the use of improper toilet paper, such as newspaper, printers' ink being a decided irritant, excessive venery, improper diet, the excessive use of alcohol or tobacco, and last, but not least, the constantly increasing employment by the populace of drastic purgative medicines. To cure the constipation, which is the result of the forenamed conditions, and which, to my mind, is the most frequent cause of piles, it is essential that regularity be observed in the time of going to the closet. This is the first step to be taken in the correction of this condition. Patients should be directed to go at the same hour daily, whether the desire exists or not. Before or after the morning meal will usually prove the best time. Physical exercise is another very important factor in correcting costiveness. To be of benefit it must be employed regularly, spasmodic efforts being harmful rather than effecting good results. Certain articles of food often aid in the removal of this affection, such as the fruits, of which apples, oranges and prunes are the best.

Medically, the treatment of constipation covers a wide range of remedies. No one plan can be outlined that will benefit all, or even the majority of persons so afflicted. It is impossible to consider this phase of the subject further, as it would necessitate prolonging this article to an unreasonable length.

Palliative Means.—This plan of treatment to accomplish the desired results must embrace a three-fold purpose: 1, The reduction of any inflammation; 2, the arrest of hemorrhage; and 3, the prevention of prolapse

of the tumors. It also includes careful attention to all the details enumerated under the head of preventive measures. In the early stages of the hemorrhoidal formations, cold water will often prevent further annoyance, when applied directly to the anus on a sponge, and also by injection into the bowel of a small quantity. The method of sponging the parts must be carried out systematically and regularly. To be successful, a large natural color sponge (one not bleached) must be secured about the size of one's fist.² This is soaked in cold water, and pressed against the anal region until all the fluid is extracted, and this procedure is repeated anywhere from fifteen to twenty-five times. The application of the water should be made both night and morning, and especially after a stool, when a protrusion is most liable to occur. The enemata need only be employed just prior to the time when the bowels are ordinarily evacuated. Sometimes considerable benefit is derived from an injection of a small quantity of cold or even ice water into the rectum, immediately after the movement of the bowels, and retaining it as long as possible.

For the relief of inflamed hemorrhoids, Dr. D. G. Gant³ advises the use of the following simple ointment, which is very effective:

R. Morphine sulphatis.....	gr. viii	5
Hydrargyri chloridi mitis.....	gr. xii	7
Vaselini	3i	30

M. Sig.: Apply freely in the rectum to the tumors and about the anus. Always bathe the parts with hot water before applying the salve.

The tendency of piles to bleed may be stopped by the use of suprarenal extract, either in the form of an ointment or a suppository, ten grains to a dram when used in a salve, and in doses of five grains when a suppository is employed. The prolapsing of the tumors is best arrested by the use of cold water, as previously advised. A useful suppository, in this connection, is one advised by Dr. James P. Tuttle:⁴

R. Ichthyol		
Tannic acid, aa.....	gr. v	3
Ext. belladonnæ		
Ext. stramonii, aa.....	gr. 1/3	02
Ext. hamamelis	gr. x	6

M. Ft. suppository No. i.

Operative Measures.—Of these methods I have only time to give a brief summary of the opinions I have formed regarding five of the methods, to-wit: 1, Divulsion; 2, injection; 3, ligature; 4, clamp and cautery; and 5, Whitehead's operation.

1. **DIVULSION.**—This operation, done under nitrous oxid gas and oxygen, often exerts a most beneficial temporary effect, especially when a patient is suffering from strangulated piles and refuses any more radical treatment. Relief for a time is obtained thereby also from constipation, but the effects, I regret to state, are not permanent unless the patient adheres to the rules laid down for the prevention of costiveness. The operation of divulsion is an essential preliminary step to the treatment of a patient by the Martin, of Philadelphia, injection method, the details of which are soon to be published by the son.

Under gas, muscular relaxation does not obtain as in the use of ether. Hence dilatation under gas can be more rapidly induced, as we have the sphincteric rigid-

ity as a guide in knowing exactly how much force may be employed in the individual case. The operation consists in overstretching the muscles with either the fingers or thumbs, or both, until all spasm is overcome. Care must be exercised not to tear the parts. My experience with this method, employed especially for the cure of fissure (irritable ulcer of the anus), enables one to say that the time occupied in the performance is less than half that under ether.

This operation is, therefore, indicated for the temporary relief afforded in a case of strangulated piles, when other operative measures are refused by the patient, and as a preliminary step to the treatment of piles by the injection method.

2. **INJECTION.**—Radical cures are effected by this means. Various formulæ are advocated. The principal difference in the methods being (1) in the use of strong solutions in large quantities, which cause a necrosis of the entire hemorrhoidal tumor; and (2) the employment of weaker solutions and smaller portions which, as my friend, Dr. James P. Tuttle,³ expresses it, "produces an inflammatory induration and choking of the circulation, which is followed by shrinking and atrophy of the piles without ulceration or sloughing." In a paper, "The Treatment of Hemorrhoids by the Injection Method," reprinted from the *Therapeutic Gazette*, August, 1897, I detailed the method which I at that time employed, and expressed the conviction that the plan of treatment was efficient and satisfactory. (My later experience in this line I gave in a paper at the annual meeting of the Pennsylvania State Medical Society, Sept. 26-29, 1904.)

3. **LIGATURE.**—Some of my distinguished colleagues regard the use of the ligature as the ideal operation for the radical treatment of hemorrhoids. Dr. Joseph M. Mathews⁵ states, quoting Erichsen, that "all external piles should be cut off, and all internal piles tied, and that he (Mathews) does not think that the advice then given can be improved on, even to this day. I am certain that in the hands of my skilled friend the operation proves all that he claims for it.

4. **CLAMP AND CAUTERY.**—This is the procedure which holds my preference over all other methods for the radical cure of hemorrhoids. A brief summary of the reasons why I view the operation in this light consists (1) in the fact that patients suffer the least pain; (2) that their recovery is quickest; and finally (3) that the constitutional effects, such as inability to urinate without catheterization, is least disturbed. The time required for a cure to be effected by this operation is at the outside two weeks. A patient after the operation has the bowels moved on the third day; is allowed to get out of bed on the fifth to the seventh day, and then is permitted to go home in from seven to ten days.

5. **WHITEHEAD'S OPERATION.**—I have never performed this operation, being unable to bring myself to a belief that the cases of hemorrhoids which have come under my observation justified the risks attending its performance. Not only are all the delicate structures in the anal region removed by this procedure, but there is also the grave possibility of a stricture following, should healing not occur by primary union. The plan of operation, in itself, reflects considerable credit on the ingenuity of its distinguished originator. I question, however, its ever reaching a popular professional employment.

2. The size of the sponge refers to one in the dried state.

3. Diseases of the Rectum and Anus, second edition, 1902, p. 431.

4. Diseases of the Anus and Rectum and Pelvic Colon, 1902, p. 617.

5. A Treatise on Diseases of the Rectum, Anus and Sigmoid Flexure, New York, 1892, p. 158.

Dr. Charles M. Kelsey⁶ epitomizes this entire subject in the following advice given to students attending his clinic:

If you wish to radically cure your patients with the least possible pain, loss of time, confinement to the house, and risk of accident, use the clamp and cautery.

If you wish to accomplish the same results with no more risk, but with more pain, more local and general disturbances, use the ligature.

If you wish to take an hour to do what can as well be done in a few minutes, and gain nothing more by it in the results, use Whitehead's operation.

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PRE-OPERATIVE AND POST-OPERATIVE TREATMENT OF SURGICAL CASES.*

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NEW ORLEANS.

The question has often occurred to me that some surgeons at least view all therapeutic measures as more or less empirical or useless, and lay too much stress on what can be accomplished by operative procedure alone.

Specialists in any given line are prone to look on any given subject from their point of view; in fact, we are of the opinion that many surgical cases before operation are not treated as they should be, so as to prepare them for the great ordeal and shock incident to a major operation, and as a result of this lack of treatment or proper preparation before operation, they are likely to have to be overtreated after or during the operation.

As a matter of course, in emergency surgery, we often have no time for general treatment, but many other surgical cases are materially benefited by proper attention to their general health, the careful flushing out of the bowels, kidneys and liver; the regulation of the heart as to its beat and tone; respiration as to its depth and regularity, and the proper building up of the nervous system and the blood count by suitable medication.

We have seen much good result from dieting, tonic capsules of iron, quinia, strychnia and cascara or liquid preparation of iron and manganese preceding some operation, especially in anemic malarial subjects, which, without the previous building up, would hardly have been able to undergo the shock of any serious operative interference. In other cases, where the long drain of chronic diseased conditions have undermined the nervous and circulatory systems, much good may be accomplished by giving digitalis, strychnia and iron, till the heart is toned down by digitalis, and the nervous system braced up by the action of the strychnia and the blood count built up by the iron. As a matter of course, no imperative operation should be made to wait for the result of such medication, but the idea that we mean to convey is that when any such case may have to wait from any cause, the period of such waiting should be utilized in the general up-building of the patient's vitality.

Many times surgeons are called on to operate on patients who have led rather fast lives; who have not only burned the candle at both ends, but have overtaxed the stomach, overworked the liver, and kept the kidneys choked with excrementitious material which should have been flushed out. All such cases are very much ben-

efited by thorough purgation with calomel and soda, or any other simple cathartic, if mercury is contraindicated. The thorough emptying of the bowels and stimulation of the secretions does away with half of the vomiting, which we have seen in cases which have not been properly purged before the operation.

Regulation of diet for several days previous to an operation so that no indigestible material is left in the alimentary tract, is another important detail to look after. The greater the quantity of water imbibed and the better the kidneys and bowels are flushed out, the better the chance for the patient to stand the operation.

In emergency operations one-fourth grain of morphia, enemas of hot milk, coffee and whiskey all tend to ward off shock. In any serious operation, Professor Smith recommends the previous administration of whiskey almost to the point of intoxication.

This plan is more suitable for subjects accustomed to drink than to follow as a general rule. The application of bandages formerly recommended to store up blood in the extremities is not practiced to any extent at present, but the saving of all the blood possible by the Esmarch bandages and the elevation of the limbs to be amputated, is doubly important in all very young or old subjects.

Mikulicz found that blood regeneration in an operation in which 1 per cent. of blood was lost, was made up in from two to five days; that 3 per cent. was made up in from five to fourteen days, and 4 per cent. was regenerated within thirty days. Usually we expect the blood regeneration to be complete within fourteen days. Mikulicz never operates on a patient whose hemoglobin is under 30 per cent. In all anemic and accident cases, where a great amount of blood has been lost, this 30 per cent. hemoglobin test is a good rule to follow, waiting, if possible, to build up the hemoglobin to the required 30 per cent. standard before operation.

We often see mucous patches and syphilitic ulceration of mouth, tongue and throat that in some degree resemble epitheliomatous growths so closely that it is hard to differentiate between the two. Recently such a case came under my observation, under the treatment of a throat specialist, who informed the patient that he had cancer of the tongue and tonsils, and must undergo a complete removal of those organs with all the deformity and consequent inconvenience incident thereto. The pathologist had examined the tumor and reported it an epitheliomatous growth. It certainly looked suspicious, and had a cancerous history, but behind all of this was also a vague syphilitic history. The patient refused to be operated on without seeing another specialist, who, on consultation, decided to try the test of free administration of iodid of potash and mercury, so the patient was given 20, 30 and 40-grain doses of iodid of potassa three times daily, well diluted, after meals, combined with protoiodid mercury pills. The effect of the treatment began to show after the first week, in diminishing the size of the ulcer and causing it to become paler and less hemorrhagic. Two weeks noted more marked improvement, and within a month the tumor had disappeared and the ulcer healed. In all cases of ulceration about the throat and tongue in syphilitic suspects, give the test treatment with iodid of potash and mercury, before any operative procedure is suggested. The time required for the test is only one month. The power of iodid of potassa and mercury in effecting such cures is almost miraculous. This recommendation, if followed, will clear up many suspicious diagnoses.

So much for pre-operative treatment. Let us now

6. The Treatment of Hemorrhoids, New York Med. Jour., June 16, 1894.