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THE TREATMENT OF ANAL FISSURE, OR IRRITABLE ULCER OF THE RECTUM.

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*THE TREATMENT OF ANAL FISSURE, OR IRRITABLE ULCER OF THE RECTUM.**

BY LEWIS H. ADLER, JR., M.D.†

THERE are some general rules that must always form a part of the treatment of anal fissure, to wit: to lessen as much as possible any inordinate action or distension of the bowel, and to prevent the ulcerated surface being irritated and abraded by the passage of hardened fæces.

To fulfill these indications, enemata or mild aperients should be employed, and the diet must be regulated, the use of bland and unirritating food being enjoined.

It is not possible to point out a diet that would be even generally applicable, as so much must depend upon the state of the constitution and the previous habits of the patient; but in general the food should be moderate in quantity, yet sufficiently nutritious—easily digestible and having no tendency to produce constipation.

The patient should be directed to take moderate exercise; and if the bowels are disposed to be costive, a

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daily evacuation should be secured by the administration of an enema of warm water, or one of rich flaxseed tea, say from half a pint to a pint, to be given every evening —preference being given to the night-time, as the patient can then assume the recumbent posture, which, combined with rest, affords the greatest protection from subsequent pain.

Instead of the enema, or in conjunction with its use, the action of the bowels may be regulated by the employment of some mild aperient such as the patient has found by experience to agree with him.

All drastic purges should be avoided, as they are more or less stimulating and irritating to the extremity of the rectum.

The pain and spasm of the sphincter muscles attending the evacuation of the bowels are best relieved by the use of a suppository consisting of:

℞ Ext. belladonnæ ..... ⅛–½ grain.
Cocain. hydrochlor. ..... ¼–½ grain.
Ol. theobromæ..... 10 grains.

Misce et ft. suppositoria j.

One suppository to be employed about half an hour before the enema is given or a movement of the bowel is expected.

Instead of the suppository, an ointment of extract of conium may be used, as recommended by Harrison Cripps:*

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* "Diseases of the Rectum and Anus," second edition, London, 1890, page 189.

℞ Ext. conii..... ʒ ij.
Olei ricini..... f ʒ iij.
Ung. lanolinii .....q. s. ad ℥ ij.
M.

A small quantity of this ointment should be smeared over the parts five minutes before a passage, and again after it has occurred.

The various methods of treating anal fissure may be divided into the *Palliative* and *Operative*.

Palliative Measures.—Palliative treatment will meet with success in cases in which the fissure is tolerably superficial and of somewhat recent origin, especially when there is no great hypertrophy of the sphincter muscles.

Allingham* states that the curability of the lesion does not depend upon the length of time that it has existed, but rather upon the pathological changes it has wrought. This same authority states that he has cured fissure of months' standing by means of local applications, when the ulcers were uncomplicated with polypi or hæmorrhoids, and when there was not marked spasm or thickening of the sphincters.

It is essential to the success of the treatment of fissure, especially by local applications, that rigid cleanliness of the parts be maintained; for this purpose the anus and the adjacent portions of the body should be carefully sponged night and morning and after each

* "Diseases of the Rectum," fifth edition, London, 1888, page 215.

stool with hot or cold water, the temperature being regulated to suit the patient's comfort.

In applying the various local remedies, it is necessary first to expose the ulcer to view, and to anæsthetize its surface with a 4- or an 8-per-cent. solution of cocaine hydrochlorate, well brushed in with a camel-hair pencil. The application may have to be repeated once or twice, at intervals of about five minutes, in order to obtain the desired anæsthetic effect.

If any ointment has been used about the fissure, the anus should be subjected to a hot-water douche before using the cocaine, as cocaine will not exert its anæsthetic influence on a greasy surface.*

Among the different remedies that have been used in the local treatment of fissure of the anus may be mentioned the following: Nitrate of silver; acid nitrate of mercury; fuming nitric acid; carbolic acid; sulphate of copper; the actual cautery; and chloral hydrate.

Of these topical applications the nitrate of silver is the best. Its effects are various: it lessens or entirely calms the nervous irritation which is so important a factor in producing spasmodic contraction of the sphincters; it coats and shields the raw and exposed mucous surface by forming an insoluble albuminate of silver; it destroys the hard and callous edges of the ulcer, and tends to remove the diseased and morbid action of the parts.

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*W. P. Agnew, M.D., "Diagnosis and Treatment of Hemorrhoids, etc.," second edition, San Francisco, Cal., 1891, p. 91.

The form in which this salt is usually employed is in solution (from 10 to 30 grains to the ounce). The stick caustic may be also used.

To accomplish the best results, the solution should be used once in twenty-four or forty-eight hours, according to circumstances. It may be applied by means of cotton attached to a silver probe or to a piece of wood.

The application is made by separating the margins of the anal orifice with the thumb and index finger of the left hand, and introducing into the anus the probe charged with the solution. The argentic nitrate is to be applied to the fissure only; a few drops are all that is required. If thorough local anæsthesia has been induced by the use of cocaine, the application of the silver salt produces little (if any) suffering, for by the time the anæsthetic has lost its effect the otherwise acute pain of the nitrate of silver will have passed away.

After each application the part should be smeared well with an ointment of iodoform (30 grains to the ounce). The odor of that drug may be disguised by the addition of a few drops of otto of roses. Iodol may be used instead and in the same way, but I prefer the iodoform, owing to its anæsthetic qualities.

After the ulcer has been touched once or twice with the silver solution, the effect will be, in the cases that are benefited by this treatment, a considerable mitigation of the pain from which the patient suffered when at the closet and afterward, and the sore will present a healthy, granulating appearance, and will slowly contract in size.

Some authorities speak highly of the use of the acid nitrate of mercury, fuming nitric acid, carbolic acid, the actual cautery, etc.; but their employment, with the single exception of carbolic acid, is attended with more suffering than follows the use of the nitrate of silver or the simple operative treatment presently to be described. Furthermore, the application of these remedies is not so certain to effect a cure as either of the two procedures just mentioned.

The daily introduction of a full-sized bougie, made of wax or tallow, will sometimes act beneficially in cases of fissure by stretching the sphincter and producing such an amount of irritation as will set up a healing process in the ulcer. An application of cocaine or of belladonna ointment should be made to the part previous to the use of the bougie.

In children and young persons, unless a polypus or polypoid growth or congenital contraction complicates the fissure, it is almost always curable without operation.

In children suffering from hereditary syphilis, numerous small cracks round the anus are common, and they cause much pain. Mercurial applications and extreme cleanliness soon cure them, but they will return from time to time unless anti-syphilitic medicines be taken for a lengthened period.*

Operative Treatment.—If, after a fair trial of the simple measures that have been recommended, the fissure does not heal; or if, as described by Allingham,†

* Allingham, *loc. cit.*, p. 213.

† *Loc. cit.*, p. 217.

the base of the ulcer be gray and hard, and if on passing the finger into the bowel the sphincter be found hypertrophied and spasmodically contracted, feeling, as it often does, like a strong india-rubber band with the upper edge sharply defined; or if there should be a polypus, polypoid growth, or any other complication; then local treatment will not effect a cure, and operative interference will be rendered necessary.

There are three methods of repute to be considered in this connection: incision, forcible dilatation, and a combination of these two procedures, viz., dilatation and incision.

Incision: A fissure can be cured by making an incision through the base of the ulcer and a little longer than the fissure itself, so as to sever all of the exposed nerve-filaments and muscular fibres along the floor of the ulcer. In a certain proportion of cases this operation will meet with success, but it is not so certain and radical as the third method to be described. It has the advantage over the other two operations, however, of being nearly or entirely painless under local anæsthesia produced by cocaine; and therefore, when general anæsthesia is contra-indicated or is refused by the patient, this method is worthy of trial.

Forcible Dilatation: This is the operation recommended by Recamier of Paris, Van Buren of New York, and others. It consists in the introduction of the thumbs into the bowel, back to back, and then forcibly separating them from each other until the sides of the bowel can be stretched as far out as the tuberosities of

the ischia. It is well to place the ball of one thumb over the fissure, and that of the other directly opposite to it, in order to prevent the fissure from being torn through and the mucous membrane stripped off. As pointed out by Allingham,* it is well to repeat the stretching in other directions until the entire circumference of the anus has been gone over. In this manner, by careful and thorough kneading and pulling of the muscles, the sphincters will be felt to give way and will be rendered soft and pliable. This procedure should always be practiced with the patient thoroughly under the influence of an anæsthetic, and it should occupy at least five or six minutes. The operation is a perfectly safe one; but as it is no less severe than the method by incision, and as it fails to effect a cure in some cases, I can see no advantage in adopting it instead of the more satisfactory and always successful plan of treatment—combined dilatation and incision. It may be found preferable, however, in some cases on account of the prejudice of patients against the use of the knife.

Rapid forcible dilatation for the cure of fissure is a method now tried by some surgeons, and *apparently* with a fair measure of success. The patient is placed under the influence of nitrous oxide gas, and the sphincters are quickly stretched either by manual force or else with instrumental power. For my part, I do not see how a satisfactory dilatation can be accomplished in this way. When the cure of fissure by dilatation is attempted

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* *Loc. cit.*, p. 226.

under ether-anæsthesia—the muscular system being completely relaxed—the thorough paralysis of the sphincters occupies several minutes before they are felt to yield, and the strain upon the operator's thumbs incident to the operation becomes very tiresome, to say the least.

With anæsthesia produced by nitrous oxide, we obtain a suspension of muscular action, but no general muscular relaxation; hence, to suspend the function of the sphincters to such a degree as to remove the cause which prevented the healing of the ulcer—viz., the constant motion of the muscular fibres,—we must exert a force which would be both detrimental and dangerous to our patient's welfare. Therefore I cannot believe that this plan of treatment will be commended by the conservative surgeon.

Dilatation and Incision: This method I believe to be a radical and unfailing cure for anal fissure, if skillfully and carefully performed. The following are the details of the operation: The bowels should be thoroughly cleansed by the previous administration of a dose of castor oil and an injection; after which, under ether-anæthesia, the sphincters should be dilated in the manner previously described. The resulting hyperdistension of the anus not only affords rest to the parts, by the temporary paralysis of the muscles, but it also, as pointed out by Van Buren, stretches the sensory nerves of the anus so that they cease for the time being to convey impressions, the result of irritation, to the nerve-fibres exposed in the floor of the ulcer; in the same way that

we find that forcible stretching of the sciatic and the sensory branches of the fifth nerve relieves neuralgia.

Chas. B. Ball* states that this theory, of the temporary cessation of the function of the sensory nerves following the hyperdistension of the bowel, receives considerable support from the fact frequently observed that the first time the bowels move after the dilatation there is entire immunity from the pain which before was so severe.

The first step in the operation being accomplished—the dilatation of the sphincter—we are enabled to obtain a complete view of the lower end of the rectum and the exact limits of the ulcer. The fissure is now kept exposed by the fingers of the left hand; and a probe-pointed bistoury is drawn through its base, from within outward, so as to incise the subjacent muscular fibres at right-angles to their course. It is well to begin the incision a little above, and to end it a little below, the ulcer, so as to insure its being carried quite through the sore.

Another method is that advocated by Mr. Syme, and is performed by transfixing the ulcer beneath its base with a small, sharp-pointed, curved bistoury, and cutting from without inwards. With this procedure the opposite side of the bowel, unless protected, is in danger of being wounded.

The subcutaneous division of the sphincter, as recommended by some authorities, is not a satisfactory method, and is mentioned solely for the purpose of con-

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* "The Rectum and Anus," p. 136.

demnation. It is not only uncertain in its results, but it is also painful, and in more than one instance has been followed by abscesses.

In cases in which the fissure is situated in the median line of the rectum, either anteriorly or posteriorly, care should be observed in making the incision, for the reason that wounds towards the coccyx split and separate the fibres of the external sphincter only, and are difficult to heal, while anatomical considerations will deter us from using the knife freely anteriorly—in the male because the bulb of the urethra is in close proximity; and in the female because of the shortness of the perineum, and the fact that division of the anterior fibres of the sphincter is so frequently followed by incontinence of fæces.*

After any of these the patient should keep the recumbent position, and it is better to confine the bowels with opium, at least for the first forty-eight hours. After three or four days a laxative followed by an enema may be given, from which time daily alvine movements should be secured. In seven or eight days the patient can begin to move about, but for at least two weeks he should avoid standing too long on the feet. No dressing is required, except a small quantity of iodoform, which should be dusted over the ulcer; and the parts should be bathed well with warm carbolized water night and morning, to remove offensive discharges. (Mar-

* T. J. Ashton, "Diseases, Injuries, and Malformations of the Rectum and Anus," etc., second American from the fourth English edition; 1865; pp. 49-50.

chand's peroxide of hydrogen may be used instead of the carbolized water.)

In the majority of cases of fissure, healing progresses with great rapidity; but occasionally, after the wound has healed to a certain extent, healthy action stops, and the appearances of an anal ulcer are again produced. Should this occur, it will generally be found that some complication has been overlooked, such as a fistulous passage running from the ulcer beneath the mucous membrane of the bowel. The presence of such a passage might be suspected if the discharge from the part is out of proportion to the size of the ulceration.*

Another complication consists of a small hypertrophied tag of membrane, or polypoid growth, situated at the base of the fissure or on some other portion of the rectal wall.

The removal of these complications will aid in the patient's recovery.

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* Harrison Cripps, *loc. cit.*, p. 190.