WHITEHEAD'S OPERATION FOR HAEMORRHOIDS.

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AFTER twenty years' experience of various operations for the cure of haemorrhoids, I have no hesitation in recommending Whitehead's operation as at once the most effective, the least painful, and the safest method, but it is necessary for success that certain precautions should be taken beforehand, and that the technique should be very carefully carried out.

The condition being one which is fairly frequent, abundant opportunities have occurred during the time mentioned both for the trial of the many other methods recommended in surgical works and journals, and for an estimation of final results.

In the early days of my surgical practice I used the clamp and cautery method, later the method of ligature, occasionally other plans, such as injection with carbolic acid, ignipuncture, etc., but for many years now these have all been abandoned in favour of the method introduced by Mr. Whitehead, which has given me by far the most satisfactory results.

The division of haemorrhoids into external, internal, and mixed has nothing to justify it from a surgical point of view; the only division of any practical importance being that between arterial and venous piles. These two have well-marked and radical differences, but from the surgical standpoint even these are not necessarily such as to require different treatment, at least if Whitehead's operation is adopted, as both are amenable to it.

The essential idea of the operation is based upon the anatomical facts that all venous piles are the dilated loops formed in the submucous tissue by the inferior haemorrhoidal veins around the anus and lower end of the rectum; that these pass through the firm fascial sheath around the rectum just above the sphincter, lying below immediately beneath the mucous membrane; that they have no valves, and therefore that if any obstacle exists which can hinder the ready return of the blood through them, they, lying as they do amongst loose connective tissue which yields but a poor support, will dilate and become more or less tortuous and sacculated. Once dilated, the firm fascia above through which they pass will still more tend to prevent their being freely emptied. The flow in them becomes more and more sluggish; clots tend to form within them. Should any firm hard mass pass over them, as during the defaecation of constipated and retained faeces, they may easily become injured. Their weakened and damaged walls will then permit of the passage of micro-organisms from the rectum and skin, and consequent inflammatory changes; but apart from these latter, the constantly enlarging loops will project against the thin skin immediately around the anus, which becomes stretched over them. It is worthy of note that the affected loops lie immediately beneath the mucous membrane, and are more adherent to it than to the parts outside.

In any given case, these loops are in all stages of development; three or four will be fully developed, large, unmistakable bulging masses, bluish in colour, owing to the venous blood or clots which they contain; probably easily separable from one another, and capable of being separately dealt with, but around and between these will be a number of smaller loops in which dilatation has only begun or has not progressed far, but which are capable later of equal enlargement. Any operation, therefore, which merely deals with the fully-developed masses is almost certain to be followed during succeeding years by a return of the disability, since it leaves behind these smaller veins, and puts no obstacle in the way of their future distension; indeed it increases that possibility since the weight of the blood is transferred to them.

The operation by clamp and cautery as well as that by ligature can only deal with the larger loops; it is impossible by either of these methods to affect all the veins. Any attempt at this with the cautery would infallibly be followed by so much contraction of the anal orifice as to lead to very unpleasant final results, whilst it would be almost impossible to find—much less to tie—all the

venules which could at a later time replace those which are then amenable to ligature. The effect upon any patient is extremely depressing when he discovers, after submitting to what he believes to be a radical operation, that in a few years things are as bad as before. He is apt to conclude that the disease is incurable.

The amount of pain caused—not at the operation, for during that he is anaesthetized, but afterwards, during the process of healing—is far greater with the alternative operations than with the properly performed Whitehead. Indeed, I have often been surprised at the small amount of discomfort experienced by the patients who have undergone the latter operation; their period of convalescence and the time during which they need to be confined to bed are also very much less.

Before determining upon any operation it is imperative that the surgeon should be certain that no concealed disease, such as cancer of the rectum or a tuberculous stricture, exists, of which the piles may be the only external evidence. A careful preliminary examination should therefore in all cases be made with the finger, and, if necessary, with the proctoscope, before any decision is arrived at. This, of course, applies to all operations about the anus.

Having decided that an operation is necessary and that Whitehead's shall be done, there are several comparatively small details which must receive due attention if a successful result is to be attained.

The intestinal tract should be previously cleared as much as possible. It is not only annoying, it is distinctly detrimental to the work, if large masses should make their appearance in the rectum during the ensuing week. Probably the best method of ensuring their absence is the administration on the day but one before of an ounce of castor oil, the taste of which may be disguised by an admixture with it of 2 drachms of tincture of cardamoms. On the day before operation the action of this should be supplemented by a copious enema of soap and water, so that the rectum may be clean. At the operation itself another free douche of weak permanganate of potash solution should also be used during the process of dilatation.

Free dilatation of the sphincter should be done before any cutting is commenced. It should be gradual, plenty of time being taken over it, so that no tearing of the muscle is possible. The best instrument for this purpose is, I think, my modification of Allingham's dilator. In this instrument the original rounded, short handles are replaced by two 4 in. long flat levers, approximation of which by the hand opens the dilating blades. By manual compression of these levers unduly rapid expansion of the sphincter, and possible damage therefrom, is prevented, since the—ordinary—hand is incapable of overcoming the sphincteric resistance too suddenly. A ratchet and screw connecting the two blades permits of maintaining the amount of dilatation so gained whilst the hand is resting. Dilatation should never be done by the screw itself, as it is impossible then to gauge the amount of force employed, and the sphincteric muscle may thereby be unduly stretched or even torn, a result most carefully to be avoided. But complete and effective dilatation before any further manipulation is extremely important to success; by this manoeuvre, whilst the sphincter remains intact, it is rendered sufficiently paretic to ensure complete rest to the part during the first few hours, gas is allowed free exit, and spasm prevented.

During the operation any actively spurting vessel should be tied, but venous bleeding may be ignored; this bleeding is sometimes free, but will cease as soon as the operation is completed.

When finished, the edges of the anus frequently appear very irregular, tags of lately distended and stretched skin projecting from the orifice; it is wise to ignore these. This skin, having been stretched over dilated veins which are now removed, will, if left alone, gradually contract again. Were these projections removed, although a neater immediate result would be obtained, the final condition due to their retraction would be an orifice which was unduly dragged to one or other side, or so tight as to render the act of defaecation a painful process.

After the suturing is finished, a suppository containing $\frac{1}{4}$ grain of morphine may be inserted in the rectum with advantage. This tides over the first few hours during

which some pain and smarting may be felt, and does not appreciably affect the action of the intestine later. For the bowels must not be "locked up." At first it was thought that, by preventing the passage of a stool for some days, rest and freedom from infection of the line of union would be obtained, so facilitating the process of healing, but it was soon found that any advantage so gained was at the expense of the future, when hard masses which had accumulated in the upper rectum and sigmoid during this period began to descend and to be forced through the half-healed ring, tearing and splitting the tissues, and thus producing not only pain, but being followed by an inflamed condition of the connective tissue around. It was far more conducive to a smooth recovery if the stools were from the first rendered soft, and easily and frequently expelled by the use of such laxatives as confection of senna, liquorice powder, cascara, etc.

By this operation not only the more prominently enlarged veins are removed, but any at that time "embryonic" haemorrhoids are taken away, and the prospects of a permanent cure are thereby immensely increased.

In certain cases, perhaps 1 per cent. or less, during the first six months after operation, a tendency to contraction at the line of union between skin and mucous membrane has been observed. The mucosa retracts slightly, so that this line in the course of a month or two will no longer be found at the edge of the anus, but from $\frac{1}{2}$ in. to 1 in. higher up. In these cases the finger introduced into the rectum will encounter a slight contraction which gives the sensation of a thread encircling the gut at this level. This is, however, most easily dilated. If bougies of gradually increasing size are passed for a few days, the sense of constriction will rapidly disappear, and, so far as my experience goes, will not return. And this constriction is never so great or anything like so intractable as that occasionally encountered after the use of the cautery.

If an arterial pile exists below the level to be removed in this way, it will be cured by the same means, the supplying artery being drawn down and tied during the process of removal; but should it exist higher up, when the anus is fully dilated, and whilst the dilator is still *in situ*, it can be easily dealt with in full sight by the ordinary method of transfixing beneath and tying in quadrants. But arterial piles are rare, the immense majority of haemorrhoids being simply venous.

This operation has met with scant justice or appreciation amongst writers on the subject, who still in most textbooks recommend the alternative measures. It has been described as causing great loss of blood, as needlessly severe, and is said by Keen and others to be now reserved for very bad cases of prolapse with many piles; but if the principle is correct, as I have tried to show, it is applicable to all, and will be found in all to give the best ultimate results. The amount of blood lost, if the technique be carefully followed, is by no means excessive, whilst in many of such patients a little bleeding is salutary.

For fifteen years I have never practised any other method, having had the advantage of seeing Mr. Whitehead perform some of his earliest operations. I have modified the method I then saw him use, as I believe he has since done himself, by separating the entire cylinder of mucous membrane with its attached veins up to and within the sphincter before attempting any transverse cut, but the essential principle is the same, and it has always been followed by a satisfactory result. In only one case has any return been noted, and that was in an early instance in which probably sufficient care was not taken to free the cylinder completely and for the necessary height.

Some hundreds of cases have been so treated without any mortality, and in all with a speedy convalescence. In a few—possibly 2 per cent.—spasmodic urinary retention for a few hours has occurred, and, in still fewer, pain at the anus has been complained of, but both have speedily yielded to hot boric fomentations to the part. Catheterism has never been required, and, although haemorrhagic discoloration has been seen around in a few instances, suppuration or abscess has never followed. Recovery has in the great majority been singularly uneventful, and in all complete.

The following are some few of the cases which could be

found and examined years after the performance of this operation. They are taken haphazard:

Male, aged 23. Operation November 6th, 1903. Three years' pain, and appearance of piles, which do not bleed. After operation, pain immediately after return to consciousness, relieved by hot compresses and morphine. Later considerable haemorrhagic discoloration around. This disappeared by the end of the third week. Examined September, 1909: anus and rectum normal.

Male, aged 42. Operation November, 1894. Five years' intermittent pain and haemorrhage. Piles at the time of operation: the size of small plums. Examined September, 1909: anus and rectum normal.

Female, aged 39. Operation May, 1900. Fourteen months' intermittent haemorrhage, sometimes at, sometimes between, times of defaecation. Pain, at first intermittent, then becoming constant; always much worse if the bowels were constipated. After operation for twenty-four hours required hot fomentations for pain; this rapidly passed off, and further recovery was smooth. Examined August, 1909: anus and rectum normal.

Female, aged 40. Operation April, 1905. Followed in two months by constriction as of a thread half an inch up the rectum. Bougies passed daily for one week; constriction disappeared. Examined September, 1909: anus and rectum normal; no sign of recurrence of constriction.

Male, aged 49. Operation July, 1907. Piles for seven years. Operated upon elsewhere by injection of carbolic acid, followed by inflammation around, evidenced by the necessity for opening an abscess; this occurred in 1905. Very little improvement even at the time; size has steadily increased since then, and more quickly during the last six months. Great pain, especially during defaecation and at night. Examined September, 1909: anus and rectum normal: no pain or bleeding since operation.

Male, aged 59. Operation August, 1896. Five years' discomfort; twelve months' intermittent haemorrhage. Four months' gradually increasing pain. At the time of operation there was some prolapse of the rectum, with a protruding ring of haemorrhoids, four or five of which were specially large; the patient was much exhausted by pain and loss of blood, and had to be lifted on to the operating table. Examined September, 1909, thirteen years later: in good health, although 72 years old. No trace of piles; bowel functioning well and easily.

Many of the hospital patients, as usual, cannot be traced, but the fact that in no case has any one operated upon in this way ever returned with a relapse is, when taken in conjunction with what is known of those who could be found, at least presumptive evidence that the result has been, in them, equally satisfactory.

THE AFTER-RESULTS OF THE OPERATIVE TREATMENT OF HAEMORRHOIDS:

A STUDY OF THREE HUNDRED CASES.

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So many conflicting statements are made about the after-results of the operative treatment of haemorrhoids, that when I took up duties as House-Surgeon in St. Mark's Hospital I thought it might be interesting to keep a record of the after-results of all the cases of haemorrhoids treated by operation

Three Hundred Cases of Haemorrhoids Treated by Operation at St. Mark's Hospital during Eighteen Months.

150 by means of the ligature, or Salmon's operation.

100 by excision of the "pile-bearing area," or Whitehead's operation.

50 by the clamp and cautery.

Pain.

This is an extremely difficult symptom to classify, as the personal element has so much to be taken into account. The amount of pain experienced has been classified under three headings:

- Severe pain, which necessitated the giving of more than $\frac{1}{4}$ grain of morphine.
- Moderate pain, which necessitated $\frac{1}{4}$ grain of morphine.
- Little or no pain, which did not necessitate the use of morphine.

	Severe.	Moderate.	Little.
	Per Cent.	Per Cent.	Per Cent.
Clamp and cautery	0	30	70
Ligature	10	57	33
Whitehead	16	56	28