Fistula, haemorrhoids, painful ulcer, stricture, prolapsus and other diseases of the rectum : their diagnosis and treatment.

FISTULA, HÆMORRHOIDS, PAINFUL ULCER, STRICTURE, PROLAPSUS AND OTHER DISEASES OF THE RECTUM

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DIAGNOSIS AND TREATMENT

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DIAGNOSIS AND TREATMENT

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ETC. ETC. ETC.

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PREFACE TO THE THIRD EDITION

THAT this book has not been written in vain I take it is evidenced by the facts, that two editions have been sold in America, that it has been translated into several foreign languages, and a third edition is demanded in this country.

The book is in great part re-written. I have found it necessary to modify my opinion on some subjects in consonance with my own further experience, and likewise as new views have been opened to me by many able fellow-workers. This edition has grown, but, I hope, contains more information without losing its practical character.

Throughout I have endeavoured to teach those who have not had the advantages for learning I have enjoyed, and I trust I shall hear from some professional brother that I have turned darkness into light for him, and that his increased knowledge has been practically useful.

25, GROSVENOR STREET, W.;
April, 1879.

CONTENTS

CHAPTER VI.

CHAPTER VII.

CHAPTER VIII.

CHAPTER IX.

CHAPTER X.

CHAPTER XI.

CHAPTER XII.

CHAPTER XIII.

CHAPTER XIV.

CHAPTER XV.

CHAPTER XVI.

CHAPTER XVII.

CHAPTER XVIII.

CHAPTER XIX.

CHAPTER XX.

CHAPTER XXI.

CHAPTER I

INTRODUCTORY

Rectal diseases are among the most common that affect civilized humanity. They are rarely found in barbarous countries. Personally I know that the natives of South Africa in their natural state very seldom suffer, but some of my medical friends practising in India, and also in China, have informed me that the natives are not exempt, and that they have seen severe cases of various kinds. The native doctors treat bleeding piles by thrusting red-hot skewers into the centre of each pile. Curious that a somewhat similar plan of treatment has recently been advocated by a London surgeon. Food and alcohol, sedentary in-door occupation, and clothing have much to do in causing these maladies, and though not usually dangerous to life, there can be no doubt as to one thing: they bring about a great deal of suffering, by which I mean not only pain, but also the distress arising from inability to work for daily bread. Both laborious and sedentary occupations are often rendered almost unendurable.

It is also true that the majority of these affections are very amenable to proper treatment; the amount of

benefit that can be conferred by a well-skilled surgeon is really remarkable, but there is the converse proposition to be considered. When diseases of the rectum are neglected, or when the surgeon prescribes confection of senna and gall ointment in every case, cures do not frequently result.

An accurate diagnosis in rectal diseases is all-important, and to prescribe for patients suffering from these maladies, without examining them both occularly and digitally, is not only false delicacy, but radically wrong, and likely to bring the treatment of these diseases into contempt.

It still constantly occurs to me to see patients who have been for a long time under treatment by qualified practitioners, and medicine and ointment plentifully prescribed, yet the patient has never been digitally examined, perhaps a look only has been vouchsafed, and the disease diagnosed and treated as piles when fistula, or ulceration, or even malignant disease has been present.

Some forms of rectal disease are much more common than others, notably fistula and piles. The popular mind seems, indeed, only to admit of the existence of these two diseases of the bowel, for they call all of them by one or other of these names. The following is a table showing the relative proportions found in 4000 cases taken from my own practice at St Mark's Hospital.

Analysis of 4000 consecutive cases observed by Mr Allingham, in the out-patients' department of St Mark's Hospital.

*Fistula	1208
Abscess, 196 (of these 151 became fistulæ, the rest probably were cured)	45
Hæmorrhoids, internal	863
„ external	102
Fissure or painful ulcer	446
Syphilitic diseases of the anus and rectum	348
Ulceration (neither malignant nor syphilitic)	190
Constipation	185
Pruritus ani	180
Stricture of the rectum (with and without ulceration)	178
Cancer of the rectum	105
Procidentia	53
Polypus without fissure	16
Hæmorrhage (cause not ascertained)	15
Impaction of fæces	14
Neuralgia	12
Dysentery	12
Spasmodic contraction of the sphincter (no fissure)	8
Proctitis	7
Foreign bodies in the rectum	5
Necrosis of bone (sacrum and tuberosity of the ischium)	4
Rodent ulcer	2
Vicarious menstruation from the rectum	2
	4000

* Of these cases of fistula there were 172 that presented more or less marked symptoms of affection of the lungs, viz. hæmoptysis, frequent cough, or want of resonance in some part of the chest.

Some of my critics have thought the above table misleading, and that hæmorrhoids are more common than fistulæ. I do not say that this may not be so when taking into consideration the middle and upper classes as well as the labouring population, from which my table is compiled, as slight cases of piles do not often come to the hospital, the labouring man or woman struggles on under an attack of piles which would certainly bring the well-to-do to the surgeon, and in my private practice I find during the last seven years I have treated a few more cases of hæmorrhoids than fistula, but it must be observed that a number of the former were very slight cases or only external piles, and not requiring any or only trivial operative interference.

CHAPTER II

EXAMINATION OF PATIENTS

There are certain questions which it is desirable to ask the patient when investigating a case of rectal disease, by which nothing is likely to be forgotten or overlooked.

It should be remembered that we have not done enough when we have discovered that a patient has a certain malady; it is our duty then to find out if any other disease coexists. Thus, I often see a correct diagnosis made, as far as regards piles, but at the same time, a fissure or fistula, or ulceration, or even malignant disease of the bowel has escaped observation.

The following are the principal queries I generally put:—Is there any pain? If so, of what character? Let the patient describe it—do not put leading questions. Does the pain exist always, or is it intermittent and paroxysmal? Is the pain set up or increased by defæcation? Does it come on as the bowels are acting, or does it follow immediately or some time after the action? How long does the pain last? does it pass away entirely, only to recur on again going to stool? Does anything protrude on the bowels acting, or on making exertion—if so, does it

bleed? Does it go back spontaneously, or has the patient to return it?

Is there any discharge? if so, what is its nature? is it of offensive odour? Is the patient constipated, or does he suffer from diarrhœa? What is the character of the fæcal evacuation, as to size, form, &c.

Has the patient incontinence of wind or fæces? Is there any hereditary tendency to rectal disease? Does the patient cough, or is there any proclivity to chest affections? Ascertain the state of the liver; and should an operation be in view never fail to examine the urine, disease of the kidneys in all probability will render an operation inadmissible. In the present day much is ascribed to gout, and it is well to bear in mind that a gouty person suddenly confined to bed will most assuredly get an attack which may, at all events unpleasantly, complicate the case; lastly, enquire into habits, especially with reference to the consumption of alcoholic drinks. I am by no means one of those who think a moderate indulgence in beer or light wine damaging to the hard-worked man, but a patient saturated with alcohol is the worst kind a surgeon can have. In such a case I always insist on four weeks' total abstinence, and at the same time preparatory treatment undergone before anything in the way of operation can be done.

In women inquire into the condition of the uterus, and if any suspicion is aroused make such investigation as will satisfy yourself as to its state.

When your verbal interrogations are concluded make your examination. There are various postures and methods in which this examination can be conducted. Some surgeons prefer the patient to kneel on a chair

and lean over the back, others to kneel on a sofa, the head being lower than the buttocks, others the lithotomy position, but on the whole, I think, the most comfortable and delicate position for the patient, and that most generally convenient for the surgeon, is to lie on the right side on a couch, with the knees drawn up to the abdomen. In special examinations to discover growths or strictures, I often get the patient to stand up and bear down; in this manner the diseased parts will be brought nearer to the anus, and so enable you to reach nearly a couple of inches higher than you can when the patient is lying down in the usual position, even if he strain down.

To commence. Externally, what is to be seen? Note any discoloration, the condition of the anus, patulous, contracted or nipple-shaped. Look for tumours, ulceration, or fistulous orifices; feel around outside the anus with the forefinger for induration in any part; by this means the situation of an abscess or sinus may be discovered, and the condition of the sphincter as to spasm observed. Then, if possible, administer an injection of warm water. I hold that no examination of the bowel can be considered *complete* if this be dispensed with. After the contents of the bowel are voided, you see what protrusion has taken place, if any; remark its character in every way, particularly as to structure, vascularity, mode of origin from the bowel, by peduncle or otherwise; finally, examine the interior of the bowel with the finger. Never neglect this. The instructed and practised finger passed into the rectum affords great information; to the initiated generally all that is needed—internal fistulous orifices, polypi, minute ulcerations, fissures,

&c., can all be easily detected. Although personally I do not use a speculum very frequently, in some cases it is a valuable aid to diagnosis. I have had many varieties of that instrument constructed, to be used with or without artificial light; but for ordinary use the plated metal speculum employed at St Mark's Hospital is, in my opinion, the best. It is open up one side and at both ends, and has a well-fitting wooden plug; the whole is so shaped as to resemble as much as possible a forefinger. It is made by most instrument makers—Ferguson, Weiss, Krome, and others. Some surgeons prefer the bi-valve speculum and I like it also, the only objection is some difficulty of introduction, and the mucous membrane may be hurt on its withdrawal.

When you desire to explore the rectum high up you may, with advantage, use a long metal tube with the interior "nickelled," one end being trumpet-shaped and large. The smaller end may be about three quarters of an inch in diameter, and it is very easily introduced into the bowel by using as the plug a small india-rubber bag, which you can inflate with air by means of a syringe. Useful as the above is, to make a thorough examination of the rectum for the purpose of diagnosing the existence of ulcerations, malignant or other growths, too high up the bowel to reach with the finger, it is best to place the patient under the influence of an anæsthetic, and in the prone position, with the hips well elevated upon hard pillows so that the intestines will gravitate towards the diaphragm, then gradually and gently by palpation dilate the sphincters, taking four or five minutes in accomplishing this operation. When thoroughly done the

whole rectum is opened to view, and, aided by one or two retractors, nothing can escape careful observation. I need scarcely say before any thorough examination is made the bowel must be well cleared out by aperients and injections, and also you must be provided with sponges mounted on holders to wipe away all discharge that would impede your view.

Even when this has been done something more may be desirable, and that is the introduction of the hand and arm into the intestine. In the year 1867, I first introduced my hand and arm into the bowel of a woman at St Mark's Hospital, and found a malignant stricture in the sigmoid flexure. From that time I have on many occasions repeated this manœuvre, and have indeed saved lives. In one case which I saw with Dr Wilson Fox and Mr Towne, of Kingsland, I found and completely stretched a band of false membrane or peritoneum which was binding down the bowel as it crossed the brim of the pelvis, relieving the obstruction and curing the patient.

Up to the year 1873 I had never introduced my hand into the male rectum believing that it was impossible that a *man's* hand could be passed through the comparatively unyielding, narrow inlet to the male pelvis; but learning that the late Professor Simon, of Heidelberg, had accomplished this, I have on many occasions (my hand being small), followed his example without inflicting any injury. I do not, however, think that, at all events in a man, much aid to diagnosis is gained, the hand being so firmly compressed in the sigmoid flexure as to prevent extensive manipulation.

I need scarcely say in this proceeding the utmost gentleness should be used, and that a small hand is

absolutely necessary. Dr Heslop, of Birmingham, relates in the 'Lancet,' May 11th, 1872, two cases of death in women after passing the hand into the rectum, and, I think, justly infers that the operation was the cause of rupture of the bowel close to or above the stricture. I have myself seen a death result from this where I believe no undue violence was employed. My opinion is that in this operation where a stricture exists it should not be *forcibly or widely* dilated, and that the dilatation should not be followed by copious enemata, which will distend unduly the weak part of the intestine and cause much straining; it is better not even to give any purgative for at least forty-eight hours, and I think it wise to administer repeatedly small doses of opium.

Referring again to the condition of the rectum after well dilating the sphincters, I wish to point out how easily operations may be performed—a large bi-valve vaginal speculum may be introduced, or Bozeman's duck-bill, and recto-vesical openings may be readily closed. I have now on three occasions successfully sewn up large vesico-rectal fistulæ made by experienced surgeons in performing lithotomy. I have removed a piece of stick three and a half inches in length, which a man had introduced into his rectum and allowed to escape into the bowel, where it got fixed cross-wise in the rectum so high up as not to be felt by the finger, and also an impaction of fæces measuring three inches in diameter, the nucleus of which was a large biliary calculus, and as regards impactions generally, after dilation of the sphincters the whole mass can be removed at one sitting which is a great advantage. I shall have occasion further on to again consider

this question of so-called "forcible dilatation." In examining the rectum in women Dr Horatio Storer, of Boston, U.S., has recommended eversion by the fingers through the vagina. This method is useful in women who have borne children, but not in the young and unmarried. Moreover, it is only the anterior wall of the rectum, and that not high up, that this method enables you to examine; by putting your fingers into the vagina you cannot bring down the posterior wall of the rectum, as I have assured myself on many occasions.

CHAPTER III

FISTULA IN ANO

Fistula is, at all events in hospital practice, the most common rectal disease affecting the adult. Out of 4000 cases taken consecutively and without selection at St. Mark's Hospital from the out-patient department there were 1057 persons suffering from fistula, and 196 from abscess, of which 151 subsequently became fistulæ, so that more than half the whole cases treated were fistula. I have recently gone over some years of the cases at St. Mark's admitted as in-patients, and this shows that two thirds of those operated upon were cases of fistula. There is one great difficulty in making deduction from statistics which I will mention, and that is that every patient does not suffer from one malady only. Constantly a fistula is found in connection with hæmorrhoids either as the substantive disease or as a complication. Again, a fissure or circular ulcer often has a sinus running from it, so that it may fairly be considered as the opening of an internal fistula, and the case called a fistula, or the sinus is not detected and the case is called ulcer or fissure, and so error creeps in.

Men are more subject to fistula than women.

This disease is most frequently met with during

middle age, but it is by no means restricted to that period of life. I have operated upon an infant in arms and upon a man seventy-eight years of age.

The causes of fistula, or abscess ending in fistula, are many and various, and several causes may combine to produce the result.

These generally may be specified :—Injury to the anus, injury to the mucous membrane of the bowel by very costive motions, by straining at stool, by foreign bodies swallowed (fishbones, and the bones of rabbits, are occasionally found in rectal abscesses), exposure to wet and cold, and particularly sitting upon damp seats after exercise, when the parts are hot and perspiring;—I have traced many cases of rectal abscess to sitting on the outside of an omnibus shortly after active exertion—the scrofulous diathesis; and certain depraved conditions of the blood, such as frequently give rise to boils or carbuncles. Here I would observe sudden and deep-seated suppuration is often found to occur after severe itching in the part with only erythematous redness on the surface.

Fistula in children almost always results from worms or injury to the anal region.

Fistula most usually commences by the formation of an abscess immediately beneath the skin just outside the anus; it is generally said to commence in the ischio-rectal fossa, but I am certain this is the rarer situation; it may also begin by ulceration of the mucous membrane of the rectum, as seen in phthisical patients; when it arises in this manner fæcal matter collects in the connective tissue, and then an abscess will form and open outside; and, lastly, an abscess may form in the sub-mucous connective tissue of the

rectum, and then burst into the bowel. This is its ordinary termination, but it may insidiously undermine the rectum in any direction, and I am convinced that the most serious forms of fistula not uncommonly originate in this manner.

Rectal abscess may arise rapidly, when there will be redness, tenderness and often very acute pain with constitutional disturbance; or it may be months in formation, and be perfectly painless even on manipulation; the only evidence of the abscess being a flat, boggy, crepitating enlargement, which can be felt at the side of the anus. This form of abscess is the most dangerous as it is apt to be neglected; it has little tendency to open spontaneously, and it results in a burrowing up by the side of the rectum to some distance, as well as under the skin towards the perineum or buttock, or both.

I think, on the whole, by far the most usual course is for the abscess to form rapidly, with great pain, and if not interfered with to burst externally; the patient then becomes suddenly easy, and fancies that his trouble is over. After more or less time the cavity of the abscess contracts, but rarely entirely closes, leaving a weeping sinus with a pouting, papillary aperture, which may be situated near or far from the anus.

It is not often that one sees a rectal abscess very early; either the patient is not aware of the importance of attending to the early symptoms, or he temporises, using fomentations or poultices; or even when seen by a surgeon, the proper treatment is not always promptly adopted. I have seen large abscesses painted with iodine under the idea of obtaining ab-

sorption. It is well to remember that as soon as pus is formed, there is only one method of treatment to be for a moment entertained and that is *incision*. I am sure it is less damaging to cut into an inflamed swelling near the anus, where no matter is, than to let a day pass over after suppuration has commenced; the longer the abscess is left unopened the more danger there is of lateral sinuses forming. Before any pus exists, rest, warm fomentations, and leeches may cut short the attack, but very rarely. Very small abscesses are well and easily opened in the following way. Place the patient on the side on which the swelling exists; pass the forefinger of the left hand, well anointed, gently into the bowel, then place the thumb of the same hand below the swelling on the skin. Now make outward pressure with your finger in the bowel, and you render the swelling quite tense and defined, it being, in fact, taken between your finger and thumb. A curved bistoury can then be thrust well into the abscess, and made to cut its way out towards the anus, in the axis of the bowel; it is well to make a thoroughly free incision, commencing at the outermost part of the swelling. If the part be thoroughly frozen by the ether spray, this operation, otherwise exquisitely painful, may be rendered almost, if not quite, painless.

The method of operating above described is by no means suitable to a severe or deep-seated abscess. I can safely say that if I see a patient with such an abscess, and he will allow me to act in my own way I can almost guarantee that no fistula shall result. The following is the method. The patient must take an anæsthetic, as the operation is very painful. I

first lay the abscess outside the anus, open from end to end transversely, *i. e.* in the direction from coccyx to the perineum. I then introduce my forefinger into the abscess and break down any secondary cavities or loculi, carrying my finger up the rectum as far as the abscess goes, probably under the sphincter muscles, so that only one large sac remains; should there be burrowing outwards. I make an incision into the buttock deeply, at right angles to the first. I then syringe out the cavity and carefully fill it with wool soaked in carbolised oil, one part to ten or twelve, this I leave in for a day or two, then take it out and examine the cavity, and dress again in the same manner, but in addition I now use, if I think it necessary, one or more drainage tubes. In a remarkably short time these patients recover; the sphincters have never been divided, and so the patient escapes the risk of incontinence of fæces or flatus which sometimes occurs when both the sphincters are deeply incised. I could cite numbers of cases of very unfavorable aspect, and in old persons, that have done quite well, treated as I have described.

To give your patient the best possible chance of recovery, you must keep him on the sofa if not in bed. I always think it advisable to clear out the bowels once and then confine them by an astringent dose of opium for three days, you thus secure entire rest to the parts, and give every opportunity for the cavity of the abscess to fill up. After a time the carbolised oil should be discarded and lotions used, nitrate of silver, copper, zinc, friar's balsam, which does great good. I find boracic acid ointment, not strong, or a solution of thymol advantageous; you must be prepared to

ring the changes; but one thing always remember, never stuff an abscess, put wool in very lightly and use drainage tubes; on the whole I prefer the india-rubber tube to any other, and have had the best results from it, as it gives rise to no pain, which cannot be said for either the wire tube or the horsehair.

The questions naturally arise, Why do these abscesses usually fail to close up? Why do they form sinuses? There are doubtless several reasons, but these may be sufficient. The mobility of the parts caused by action of the bowels and movement of the sphincter muscles, almost at every breath, and the presence of much loose areolar tissue and fat. The vessels near the rectum are not well supported, and the veins have no valves; therefore there is tendency to stasis, and this is inimical to rapid granulation. We know that abscesses are always apt to degenerate into sinuses when situated in any lax areolar tissue, as in the axilla, neck, or groin.

After an abscess has long existed the discharge loses its purulent character; it becomes watery; the abscess has gradually contracted, and now only a sinus, very often formed of dense tissue, remains. If this sinus be laid open you may observe that its interior resembles in appearance the inner coat of an artery, so glistening and smooth has it become. This was formerly called a pyogenic membrane; it certainly secretes pus, but it is not a membrane.

If now a probe be passed very tenderly into this sinus, allowing it to follow its own course, and after this is done the finger be placed in the rectum, you will probably find that the probe has traversed the sinus, passed through an internal opening, and can be

felt in the bowel. In this case you would have a typical, simple, COMPLETE fistula; and this is by far the most common variety, very few fistulæ that have existed for more than three months being without an internal opening.

Besides this common form there are two other descriptions of fistula, viz. the blind external fistula, and the blind internal fistula. In the blind external fistula there is an *external* opening, and so it is called an *external* fistula, but no *internal* opening, hence "a BLIND *external*." In the other variety there is an *internal* opening, so it is an *internal* fistula, and there is no *external* opening, so it must be called a BLIND *internal* fistula.

I have so often seen confusion in the use of these terms that I have been particular in describing them; and, considered in the way I have put it, I think there can be no misconception.

The blind internal form of fistula results usually from some injury to, or ulceration of, the lining membrane of the rectum, or abscess in the connective tissue beneath the mucous membrane, and is most commonly found in subjects who have consumption or who are predisposed to it.

Now, these terms complete, blind external, and blind internal, are useful, but surgically they are of little moment; there is a very much more important division which affects the character of the fistula as regards its seriousness to the patient and also to the surgeon, I mean the division into anal fistula, and pelvic or rectal fistula. An anal fistula is one which, commencing immediately beneath the skin outside the anus, opens just inside the anus, passes at most under a few

fibres of the external sphincter, and is trivial and can be rapidly and safely cured. By pelvic or rectal fistula I mean a fistula which commencing probably by an abscess in the ischio-rectal fossa passes underneath both the sphincter muscles and opens possibly high up the bowel, indeed in the pelvis. This is the fistula which is dangerous to the patient, and will call forth all the knowledge and experience of the surgeon to bring to a successful issue. My friend Dr David Molliere, of Lyon, in his exceedingly exhaustive and able work on 'Diseases of the Rectum,' makes practically the same division, calling the first "Fistules sous-tégumentaires," and the second "Fistules sous-musculaires."

We will now imagine that you have a fistulous patient before you. Proceed to examine him thus:— Place him upon a hard couch on the side upon which the disease is supposed to be situated, the buttocks being brought close to the edge of the couch, and the knees drawn up. Look at the anus and the surrounding parts *carefully* to detect any visible malady. You may see the orifice of a sinus, or some discoloration of the skin may show you the site of the disease. Then feel gently all round the anus with the forefinger, and you will often, by the induration, detect the course and position of the sinus, which feels like a pipe beneath the skin. Having satisfied yourself in these respects, pass the probe into the external aperture; hold the probe with a very light hand, and let it almost find its own way. In many cases, as I have before said, it will pass right into the bowel; when the probe has been passed as far as it will go without using any force, introduce the forefinger of the left or right

hand, whichever, according to the position of the patient, is most convenient, into the rectum; do not, as is often done, introduce your finger before the probe, if you do, you will excite contraction of the sphincter, and the sinus will be drawn up or contorted, and consequently the passage of the probe is obstructed. When the finger is in the bowel, if the probe has not come through the internal orifice, feel for the opening —an educated digit will nearly always detect it; and having found the opening, you can with the other hand guide the probe towards it.

The internal aperture is usually situated just within the anus, in the depression which exists between the external and internal sphincters. I do not say that it is by any means invariably so, but I am sure that it commonly is so; and one reason why the opening is not felt when the finger is inserted is because the search for it is made too high up the bowel.

I think the reason the internal opening is situated so often in the position I have named, is this. The abscess forming, in most cases, just outside the anus, does not burrow deeply, but passes close under the external sphincter; it then is prevented ascending higher up the bowel by the thick band of the *internal* sphincter, and consequently is turned inwards, and makes its way through the lax areolar tissue, in the space between the two muscles. When the abscess really commences in the ischio-rectal fossa, it burrows deeply, and then most usually passes beneath the internal sphincter, and opens, if at all, high up in the rectum.

Occasionally more than one internal opening exists,

and I have now many times seen what the late Mr Syme declared could not occur, viz. two internal openings in the same patient at the same time; I recently had such a case at St Mark's, there was an internal aperture at each side of the bowel.

It is all important that this internal aperture be felt with the finger (so that in operating it may be included in your incision), for not unfrequently from the tortuous nature of the fistula the probe cannot readily be got through it; this is markedly the case in the horse-shoe form of fistula, which is not uncommon. The sinus here runs round—generally dorsally—from one side of the anus to the other, so that the external and internal openings are placed on opposite sides of the bowel. This variety, if not properly diagnosed, is rarely cured by operation, the sinus being laid open on one side of the bowel, and left untouched on the other; this mistake may generally be avoided by a careful examination with the finger externally, as you can feel a hardness on *both* sides of the anus, the patient will also sometimes assist you by telling you that he has felt something like a "piece of wire" on both sides of the bowel.

When you pass your finger into the bowel to search for the internal opening, never forget to carry it higher up to see if the rectum be otherwise healthy; you may find stricture, ulceration, or malignant disease co-existent; without this precaution these conditions may be overlooked.

A fistula may be a very trivial matter indeed, which you can operate upon in the out-patients' room, and send your patient home afterwards, or it may be a really serious affair, demanding extensive surgical

interference. I have often seen a buttock so riddled with sinuses as to more resemble a rabbit warren than anything else.

Fistula may exist for years without causing much pain or inconvenience to the patient. I have met with many persons who have had rectal sinuses for ten years and upwards, and never had anything more done than the occasional passing of a probe when the external aperture got blocked up, and pain was caused by the formation and retention of matter.

When the tissues around the sinus become very dense there may be, for a long period, an arrest of burrowing, but an attack of inflammation set up at any time will cause a fresh abscess.

When seeking to determine whether you can safely leave a fistula for a time, the kind is an important element for consideration. The blind external is the safest to leave. An internal fistula with a large internal opening, and the sinus running from it towards the anus, is sure to burrow, because, being funnel-shaped, with the larger end of the funnel upwards, fæces readily pass into it, and inflammation, much pain, and extension of the disease will certainly ensue.

Usually it may be said the longer a fistula is left the more does it burrow, and the more difficult is it of cure; therefore I think it unwise to tell a person to have nothing done as long as he is not suffering, which I frequently hear is the advice given to patients.

I am often anxiously asked by sufferers if a fistula can be cured without an operation, or, as they say, "the use of the knife." To this I reply that I have seen all kinds of fistula get well with and even without treatment, but these occurrences are quite exceptions

to the rule, and should not be depended upon; still, if the fistula be simple and the patient be unwilling to submit to any operation, certain methods may fairly be tried. For the last few years I have been successful, on many occasions, in curing blind external, and even complete fistulæ, by means of carbolic acid and drainage tubes. This mode of treatment, if carried out with great care and some perseverance, offers, in my opinion, the best chance for the patient. I find it is essential that the outer opening of the fistula should be much dilated before applying the acid or using tubes. The dilation can be accomplished by keeping in a small portion of sea-tangle for a few days, or by a small sponge tent. When the opening is large enough I clean out the sinus well, and then rapidly run down to the end of it a small piece of wool saturated in strong carbolic acid with 10 per cent. of water. I mount the wool upon a stiff piece of wire set in a handle and just roughened at the free end. The wool can, with a little practice, be wound tightly on the end of the wire so as to be small enough to go right to the bottom of the sinus. I then put in a drainage tube just large enough to fill the sinus, and keep it in; the interior of the sinus is, by the acid, induced to granulate, and if you are successful you will find almost day by day, that a shorter drainage tube will be required until the whole sinus is filled up. It may be necessary to apply the acid more than once, and to use other stimulants, as Friars balsam, solutions of sulphate of copper, or nitrate of silver, &c., but never strong injections; always take care to keep the external opening well dilated. I had thought the heated galvanic wire passed to the bottom of a

sinus would be very effectual, but many trials have convinced me that it cannot be relied on, and that also it is painful.

I have now seen many spontaneous cures of simple fistula, and have seen an ordinary examination with a probe set up exactly the quantity of inflammation required to obliterate the sinus, and a good many of such results I have had opportunities of watching, and no return has taken place; but, on the other hand, the bulk of the so-called spontaneous cures are illusory and the disease returns in time, and even the same may be said of those in which treatment, short of division, has seemed effectual. In my opinion, there is nothing equal to the division of the fistula and getting it to fill up soundly from the bottom.

I will relate a few cases of spontaneous cure, and also an example or so of cure by treatment, which have recently occurred in my practice.

Spontaneous Cure of a blind external fistula.—Wm. B—, æt. 49, a draper's assistant, admitted into St Mark's, August 30th, 1864. Had an abscess five months ago by the side of the anus, which was opened, and ever since there has been a discharge from it; at times it is very sore and swells, then it breaks and discharges again, and he is quite comfortable. On examination a blind external fistula was found, the orifice being close to the external edge of the sphincter; the sinus ran up quite an inch, and did not approach near to the mucous membrane. I was quite sure, from a most careful examination, that no internal aperture existed.

No treatment was adopted, as I intended to take him in when there was a vacant bed. He only had a little calomel ointment ordered, and a pill to keep the bowels acting. In three weeks he told me the sinus had healed, and on examination I found it to be so; of course I expected it to break out again.

October 11th.—It remains soundly healed, and the hardness is just disappearing.

December 20th.—The fistula remains quite well; there is no evidence now of where it was, no mark of the original aperture, and no indura-

tion. My opinion is that the probing in this case was just sufficient to set up granulation and rapid closure of the sinus. It did not return, I am sure, as the man would certainly have come again to me, being so delighted with the result of what he considered my skilful treatment.

Blind external fistula; spontaneous cure.—J. C—, æt. 46, a porter at the Tilbury Station; admitted into St Mark's, May, 1867. Steady man; suffers from ague. Six months ago had a rectal abscess, which burst, and has continued to discharge more or less up to the present time. A sinus was found running some distance up by the bowel, rather deeply situated, and not communicating. I wished to take him in, but he said he could not lay up yet. Ordered a mild aperient, and some zinc ointment. In a fortnight he came again, and said the fistula had healed. I examined him, and found it closed; moreover, it was not tender.

June 7th.—Again examined; found it still well; no pain; very little hardness; no discharge from the bowel; and I explored the rectum to see if it could have opened internally but this was not the case.

July.—Saw him again, and he was quite well, and he has continued so. I believe he has never had any return of his malady.

Blind external fistula; spontaneous cure.—Jas. L—, æt. 65, came to St Mark's, July 5th, 1864. The external aperture was some distance from the anus; the sinus passed up beyond the external sphincter, and the probe could be felt rather nearer the mucous membrane. No particular treatment. The probe was passed again in about a fortnight after he was first seen. The sinus healed up while he was waiting his turn to come in. I kept him under observation until the end of December, when, finding no return of the fistula, no pain, no discharge no internal opening, no hardness in the old track of the sinus, I discharged him as cured.

Complete fistula in ano; spontaneous cure.—W. H. K—, æt. 30, clerk, admitted into St Mark's, April 2nd, 1867. Not very strong; habits regular. On examination a small but complete fistula was found on the right side of the anus, the external opening being quite an inch from it, the internal aperture in the usual place between the two sphincters. In the middle of May I took him in as an in-door patient and on going to operate I found the external orifice so firmly closed that I could not without unwarrantable force get a probe into it; I could feel the internal aperture very small. There was no pain, so I left him. Next week I again examined him, and found the internal orifice also closed. I kept him in the hospital another week, and still the fistula remained healed, so I put him upon the out-patient list, and he attended up to the end of August, when, finding the fistula still

closed, there being no pain and no induration, I discharged him as cured, requesting him to come again immediately on any return of pain or swelling. I have not seen him since.

Most of the cases of fistula which I have tried to cure without an operation have occurred in private practice; the reason is, that time is generally a great consideration to the poor man; he does not mind a little pain; he wants to be cured as quickly as possible, and therefore prefers to be operated upon at once, in order to get well certainly and speedily. It is only the rich who can afford the luxury of three or four months' treatment, and, perhaps, at the end of that time be no nearer well than at first. Altogether I find that I have had twenty-one successful cases, and a considerable number in which I have failed to effect a cure after a prolonged attempt, so I cannot say the prospect is very encouraging, but patients who will not submit to the knife will often allow me to use the elastic ligature, and of that I shall have more to say presently.

Cases cured by treatment.

A gentleman, æt. 50, a free liver and very nervous, came to me with a blind external fistula on the right side, January 9th, 1875. I could hardly examine him in consequence of his terror, so I ordered him some sedative ointment, and requested him to come again in three days. He was on his second visit less timorous, and I made out that he had an anal fistula of the blind external kind. I advised division, first by knife, then by the elastic ligature, but he turned a deaf ear to all I could say. Cut or tied he would not be. The experience of Louis XIV. was nothing to him, and he thought very disparagingly of an art which could do no better than cut people. He readily assented to my making trial of any treatment not very painful, so I dilated the opening with sponge tent, and then wiped the sinus thoroughly with the carbolic acid. The pain was trivial, only slight burning for a few minutes. After twenty-four hours I put in a small india-rubber drainage tube. He went about as usual, but the bowels I kept confined for six days. At the end of that time a copious enema of oil and gruel thoroughly relieved him. The discharge from the fistula had been gradually dimi-

nishing, and it was much less deep. All I now did was to keep the external opening wide by a piece of sponge, and in three months the sinus was quite healed. I have good reason to know that this case was a genuine success.

A gentleman, æt. 40, robust, but wonderfully cowardly, came to me on the 26th of June, 1875. An examination showed a small blind external fistula. He had suffered from abscess near the rectum, which a gentleman opened for him nine months ago, and the pain he had gone through from that was such as to make him determine that nothing should persuade him to be cut again. I immediately proposed the elastic ligature, in which I assured him I had great confidence; but unfortunately he had, before seeing me, consulted a surgeon, who related to him an awful case he had experienced with the ligature, which did not come away for nine days, during which time the patient was in incessant pain. So he would have none of it. I dilated the external opening with the tangle, and then put in a drainage tube, but did not use carbolic acid or any strong application, as the patient feared pain. For some time this case did not do well, and I was on the point of giving it up, when I persuaded him to take an anæsthetic and allow me to dilate his sphincter muscles (which were very spasmodically contracted), and apply the carbolic acid. He consented; and the result of this combined attack and keeping him in bed a week conquered the sinus, and it healed quickly. I fancy this patient has remained well.

A difficulty in these cases is to keep the external orifice very large without irritating too much; and my friend Mr. Clover, with his usual ingenuity, effected that wonderfully well in a case I saw with him, by inserting a bone collar stud into the opening. When this was slipped in, it could not come out, and the patient wore it and went about without complaining of even discomfort; since seeing this case I have tried the collar stud on many occasions, but have had a small hole drilled through from end to end, in order that no pus might be retained in the sinus, and it has answered the purpose I desired, viz. to keep the external orifice large.

A lady came to me from the country in the beginning of this year with a small abscess, which had been opened, and a sinus running up

the bowel quite an inch. She was most desirous to be cured, but would not have the knife, and feared the elastic ligature. I was able, after a little dilation of the orifice, to get the bone stud in, and in ten days the sinus had healed. To give her every chance she kept her sofa, and I confined the bowels for seven days. I saw this patient recently, and she kept quite well.

I do not think anything would be gained by relating more cases. One practical point I would mention. The further the external aperture is from the sphincter, the more likelihood is there that the sinus may heal. This is shown as well in the cases of spontaneous cure as in my own successes. It is very important in these attempts not to do any harm. You must always enjoin rest after a strong application, and watch that not too much inflammation be set up.

CHAPTER IV

FISTULA AND THE TREATMENT BY ELASTIC LIGATURE

As I have been considering the treatment of fistula without cutting, I think before describing the usual methods of operating, I had better relate my experience of the use of the elastic ligature, describe its mode of application, and endeavour to point out what really it can do and what it cannot be expected to do. And at once I will fully confess that when I read a paper before the Medical Society of London, in February, 1875, on the treatment of fistula and other sinuses by the elastic ligature, I anticipated a wider use for it than I have found. Still, I must assert that the ligature is most valuable in many cases and frequently invaluable as an auxiliary to the knife.

Professor Dittel, of Vienna, may certainly be called the apostle of the elastic ligature, but he was not the discoverer, as Mr Henry Lee and also Mr Holthouse had previously used it for the removal of nævi and in anal fistulæ. When I read Professor Dittel's paper I came to the conclusion that the india-rubber ligature might be found very useful in the branch of surgery to which I had paid special attention. I therefore determined to make a fair trial of it, and now have employed it in more than 150 varied cases. I can

truly say I have over and over again been very glad that the utility of the elastic ligature had been brought forward by Professor Dittel after it had quite fallen into oblivion.

Ligatures of thread for a great many years, even, we may say, from the time of Ambrose Paré, have been employed for cutting through certain structures, mainly arteries; but hæmorrhoids, nævi, warty and pedunculated growths have constantly been removed by the application of a ligature, and the reason it has not been more extensively available has arisen from the fact that only a comparatively limited thickness of tissue can be cut through by *one* application of the ligature, which, as suppuration takes place, becomes loose, and then does not penetrate further unless it be re-tightened; it is only therefore small and soft growths that can be safely and advantageously treated by the *inelastic* thread ligature.

Various means have been devised to overcome this inherent defect, and make the thread ligature cut, by constantly or frequently tightening the thread—such means are shown in Ricord's instrument for the treatment of varicocele; Mr Luke's double screw, which he invented for cutting through rectal fistulæ which ran so high up the bowel as to be considered dangerous of division with the knife. A variety of methods, of which a spiral spring is the essential, have also been employed, from a wooden spiral-spring letter-clip up to the very ingenious sarcotome of Dr Ainslie Hollis.

To all these methods, comparatively good as they may be, some very strong objections may be raised. From considerable experience, I know that Mr Luke's

double screw, advantageous as it has proved, causes very intense pain; the daily or frequent necessity for tightening the ligature inflicts upon the patient a torture often unendurable, and on many occasions the knife has had to complete what the ligature began, the patient being unable to endure the long-continued suffering. Another very grave objection to the intermitting application of pressure is the frequency with which secondary abscesses result. I have had this occur in my own practice, and seen it also in that of other surgeons.

Dr Hollis's sarcotome is very superior to the others in action, but even this requires tightening or re-setting from time to time; it acts also only in one direction, and therein lacks the even *circular* pressure exerted by the india rubber. Another important objection is its size and weight, which render it under many conditions inapplicable.

It must be evident, on reflection, that the pressure of the india-rubber band or loop is not always the same during all the progress of the cutting—in fact, it diminishes gradually as the loop of the ligature becomes less in circumference; but practically the pressure up to the moment of separation, if properly adjusted at first, is sufficient for its work.

The greatest pressure exerted by a solid india-rubber ligature of the thickness of 1-10th of an inch, stretched to the utmost, only equals $2\frac{1}{4}$ lbs. weight; for example, 6 inches of india rubber, when stretched to its utmost, *i.e.* 3 feet, exercises a power of $2\frac{1}{4}$ lbs.; when stretched to 2 feet, only a little more than $1\frac{1}{4}$ lbs.; and when stretched only 1 foot, or double its length, $\frac{1}{2}$ lb.; and even this power is quite sufficient, as shown by ex-

periment, to pass through any ordinary tissue, in consequence of its unremitting and even pressure in every direction.

I have for a long while now only used solid india rubber, so strong that I cannot break it; and I put it on as tightly as I can and fasten it by means of a small pewter clip pressed together by strong forceps. The ligature cuts through in about six days, *i.e.* that was the average time in ninety cases of fistula. The shortest time has been three days, and the longest fourteen days, and in the latter case a solid portion of flesh, three inches in length and two inches in thickness, was cut through without any tightening of the ligature. You may be assured that those who find a difficulty in getting the ligature to cut quickly and painlessly are ignorant of the proper method of applying it.

What are the advantages of the ligature? Briefly, in simple cases there is little or no pain inflicted by the operation; the patient can walk about without danger. I have had large experience of this; often nervous persons will submit to ligature when they will not to the knife. There is no bleeding, a manifest advantage when patients are in the habit of losing much blood on being wounded. I have found it useful in several such cases. In phthisical cases it is in my opinion the best means of dividing a sinus. In very deep bad fistulæ the elastic ligature is most valuable as an auxiliary to the knife. I now most frequently use it in this way—avoiding hæmorrhage in sinuses running high up the bowel where large vessels are inevitably met with. I have recently had many examples of this, and have readily and painlessly divided vascular structures without any danger of bleeding. In an

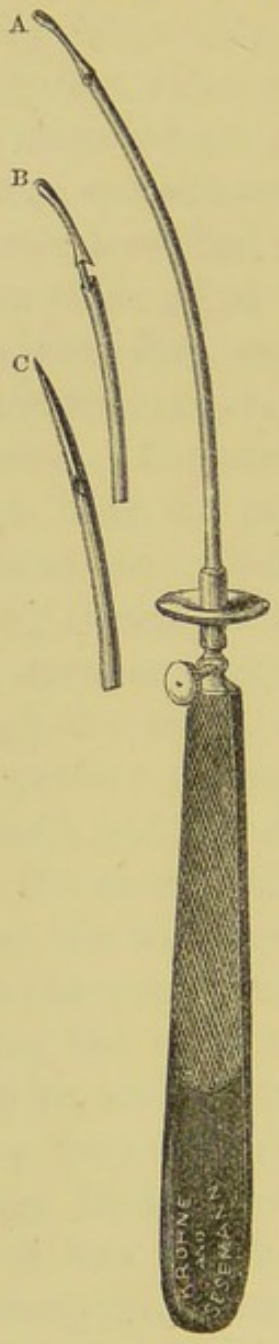
unusually bad case sent me by Dr Wm. Price, of Margate, a timid lady did not know the ligature was used until it came away on the seventh day, as she had absolutely suffered no pain worth complaining about, and certainly not more than when the knife is used alone. I have now operated on eight medical men, and they all have told me that there had been no pain, and even very little discomfort from the ligature, and it had been a great advantage to them as they were able to get about in a moderate way and see their patients. One mistake committed by those who oppose the use of the ligature is this, they think the wound does not commence healing until the ligature has come away—nothing is further from the truth. When the ligature, if it has been well applied, has cut its way out, the wound is often very nearly healed. I beg to refer my readers to a monograph by Professor Courty, of Montpelier, in corroboration of my statement. This gentleman has used the elastic ligature frequently, and has been most successful. Now, what is the great objection to the general use of the ligature in fistula? It is this. It is very difficult or even impossible in many instances to be absolutely sure that only *one* sinus exists. If there are lateral sinuses, or a sinus burrowing beneath or higher up the rectum than the main trunk through which you pass your ligature, the patient will not get well at one operation. In *these* complicated cases the knife alone or conjoined with the ligature can only be trusted. So it comes about that surgeons not very *au fait* in the diagnosis of fistula soon get into trouble, and at once condemn and throw aside the ligature.

I had employed the india rubber ligature in very

few cases only before I came to the conclusion that if I intended operating frequently, or if ever the method were to become popular, other and better means must be devised for the introduction of the ligature through the fistula than those recommended and used by Prof. Dittel. The Professor described several ways of accomplishing the end in view, all of which appeared to me to be theoretically imperfect, and I found them practically difficult of performance, tedious, and exceedingly painful to the patient. For complete fistula he used a probe with an eye near its point, which was to be passed from without to within, carrying the india rubber and a strong thread, so that if the india rubber broke in tying it, another ligature could be drawn by the thread through the sinus. Another method was to pass a tubular probe; through the tube a fine wire was to be introduced, and the end hooked down by the finger passed into the bowel; then the probe was to be withdrawn, so that the wire traversed the fistula, one end hanging from the outer opening, the other emerging from the anus; the india rubber was then to be fastened to the wire, and drawn through the fistula. This was really a very difficult task to accomplish; sometimes the wire broke, and the probe had to be re-introduced, so it was found better to attach to the wire a piece of strong thin cord and draw that through the probe, then to it fix the india rubber, which in its turn was finally got into the desired position. I need scarcely say this is a very lengthy as well as painful mode of procedure, as the thin wire or cord cuts the inner opening of the fistula. When the fistula was not complete Prof. Dittel recommends a director to be passed as far as possible up the sinus and along the

To face p. 35

Woodcut showing Mr. Allingham's instrument for drawing the india rubber through a fistula from within outwards.



It consists in the combination of a concealed hook or notch with a blunt or sharp-pointed probe, as the case may require. A shows the curved probe with the hook concealed by the sliding canula, ready to be passed through a fistula; or, if a sharp point be substituted for a blunt point, under a tumour. B exhibits the instrument with the canula drawn back, and the previously concealed notch exposed, ready to receive the loop of india rubber; when this is placed in the notch the canula is pushed home, and the ligature is held so firmly that it cannot escape. Thus a double ligature can be readily drawn through a fistula or under a tumour. It is not necessary in fistula to see the hook, for if the finger, with a loop of india rubber around it, be passed up the rectum, the loop can with great facility be directed over the end of the probe and caught in the notch quite unassisted by vision. C shows the sharp-pointed instrument adapted to the same canula, so that only one handle and one canula are required to complete the double instrument.

groove; a sharp needle armed with the india rubber was to be carried and the bowel perforated, the ligature drawn from the eye of the needle by the finger, and the needle removed. This, I may remark, if the sinus runs far up the bowel, is by no means so simple of accomplishment as it may appear. Being, then, very dissatisfied with these methods of operating, I set myself to find some better and simpler plan, and on reflection I came to the conclusion that the india rubber could be *drawn* much more readily from within the rectum through the internal opening (or through an artificial perforation in the bowel) than by commencing to pass it from the external opening. This conviction led me to devise this simple instrument (which is shown in the woodcut) for *drawing* a ligature through a fistulous sinus or beneath a tumour, and Messrs Krohne and Sesemann have with much care and pains rendered it, in my opinion, practically quite perfect.

It consists, as will be seen, in the combination of a concealed hook or notch, with a blunt or sharp-pointed probe, as the case may require. *A* shows the curved probe with the hook concealed by the sliding canula, ready to be passed through a fistula, or, if a sharp point be substituted for a blunt one, under a tumour. *B* exhibits the instrument with the canula drawn back, and the previously concealed notch exposed, ready to receive the loop of india rubber; when this is placed in the notch, the canula is pushed home, and the ligature is held so firmly that it cannot escape. Thus a double ligature can be readily drawn through a fistula or beneath a tumour. It is not necessary in fistula to see the hook, for if the finger, with a loop of india rubber around it, be passed up the rectum, the loop

can with perfect facility be directed over the end of the probe and caught in the notch quite unaided by vision. *C* shows the sharp-pointed instrument adapted to the same canula, so that only one handle and one canula are required to complete the double instrument. You see that with my instrument a *double* ligature is brought through the sinus : this is an advantage, especially if you tie the ligature, as in thus securing it you are very apt to break the india rubber, and you have the second ligature to fall back upon : but I very early abandoned the knot, and I now only use a small, soft-metal oval ring ; the two ends of the india rubber are threaded through this, the rubber is pulled as tight as you require it, and the metal ring is then closed by a strong pair of forceps ; this holds perfectly tight, it never breaks the ligature, never gives way, and is done in a moment.

CHAPTER V.

OPERATIONS ON FISTULA IN ANO.

Before proceeding to operate upon a case of fistula it is highly important that the bowels should be well cleared out, and I prefer, when I can, to administer a purge three days prior to operating, and again the night before, and an injection may be given in the morning.

The patient should be placed upon a hard mattress on the side on which the fistula exists, the buttocks being brought quite to the edge, or rather overhanging the edge of the couch, and the knees well drawn up to the abdomen. I have no hesitation in saying this position for the majority of rectal operations is vastly the most convenient both for the surgeon and the patient, but occasionally the lithotomy posture is preferable, as, for example, in excision of the rectum. Now, take a Brodie's probe-director made of steel, with a *small* probe point; oil it, and pass it into the external opening through the sinus and the internal opening, if possible; then insert your finger into the rectum, and on feeling the point of the director in the bowel, if the patient be not anæsthetised, tell him to strain down, you will then very easily be able to turn the point out of the anus. This done, with a curved bistoury divide the tissues bridged over the director.

If the fistula be deep, running beneath the sphincters

you will not be able to get the point of the probe out at the anus even if the patient be anæsthetised; in such a case you must pass the director well through the sinus then insert your left forefinger into the rectum, steady the director, and run a straight knife along the groove cutting carefully towards the bowel until the parts are severed. This is by no means an easy operation, and requires much practice and experience to accomplish quickly and without bungling. To the inexpert surgeon in such a case I recommend my deeply grooved director and scissors which I shall describe further on (p. 42); I may mention gentle dilatation of the sphincters under these difficulties gives the surgeon an immense advantage of which I now constantly avail myself.

If there be no internal opening you will almost always find some part where only mucous membrane intervenes between the point of the probe and your finger. At this spot work the director through, and bring down the point as before. You must not rashly thrust the point of the probe through the mucous membrane or you will wound your own finger; this may always be avoided by a little gentle and patient manipulation, even when the tissues are indurated. When you have divided the fistula from the external to the internal opening, search higher with the probe for any sinus running up beyond the internal opening; if this exists you should lay it open.

I know many authorities have stated that it is only necessary to incise the fistula between its external and internal openings, aud that the sinus above the internal opening will spontaneously close; my experience is most decidedly opposed to this statement.

In the great majority of cases you will not cure your patient unless you lay the whole sinus open from end to end. Over and over again I have left the sinus above the internal opening uninterfered with, and almost invariably have had to regret it and perform a second operation. It constantly occurs to me at St Mark's to have cases which have been operated upon at other hospitals, and the upper part of the sinus left, and the patient is not cured; fresh or continued burrowing takes place from the upper track, and a second operation, often more severe than the first, is rendered necessary. I need scarcely say that in private practice this is very damaging to the surgeon's reputation.

Having then opened the fistula in its whole upward length, search for lateral sinuses extending from the outer opening; also see if there be any burrowing outwards beyond the outer opening. A fistulous orifice is often not at either end of the sinus, but somewhere in its course. Be careful to see if, from the track of the main sinus, no other runs beneath it. Frequently, in fact nearly always in old-standing cases, this deeper sinus does exist, and unless it is incised with the rest the patient will not get well.

Here, again, some surgeons have said it is unnecessary to divide any but the principal sinus, and the rest will heal. On this point I can speak most strongly. I am certain you can never guarantee the healing of a fistula as long as any lateral or deep sinuses remain; and so long as they do remain, *fresh* sinuses are apt to form. As a rule, it is the best practice to lay open the original sinus first and the tributary ones after.

It is impossible in any work to lay down more than

general rules; every case will call more or less upon the surgeon's knowledge, dexterity, and prudence; but in thus strongly expressing my opinion, contrary to the dicta of many eminent men, I can only say that I am stating what I see almost every day to be the truth.

When all the sinuses are slit up; with a a pair of scissors, take off a portion of the *overlapping* edges of skin; they are often thin and livid, having very little vitality. If not removed, they will fall down into the wound and materially retard the healing process. I have frequently induced healing in a fistulous track, which had only been laid open, by paring off the edges of the skin which were undermined. It must be observed that I am not advocating "the cutting out of a fistula," as it used to be called; I am only recommending the removal of any overhanging, undermined, degenerate skin. When several sinuses have to be laid open I am in the habit of carefully preserving islets of skin from the edges of which granulations will take place, and by which cicatrisation is materially hastened. Indeed, I have in many cases practised skin grafting with good results, though failures have not been infrequent. In old-standing cases, where there is much induration, it is very good practice to draw a straight knife through the dense track of the fistula, and outwards beyond the external opening; it is wonderful after this how rapidly quite cartilaginous hardness passes away. This incision was commonly practised by the late Mr Salmon. He called it his "back cut," and although if carried to excess incontinence of fæces may result, I have no hesitation in saying that Mr Salmon cured many cases by this means where other surgeons had failed.

Having completed your operation, take some finely carded cotton wool, and with a probe place it well into the bottom of the wound, packing it into every part, and being the more particular about this if your incisions have been extensive or pass high up the bowel, or if the parts are very dense and gristly, as they are in old fistulæ, and especially in cases operated upon for the second time. A good firm pad of wool should then be placed between the buttocks over the wounds, and a T bandage firmly applied. With these precautions you need never fear hæmorrhage; for if the bleeding be thus arrested by pressure at first, all will be well; if, however, the wool be carelessly stuffed into the bowel without method, it is not placed evenly at the bottom of the wound, and then, as soon as the patient rallies from the shock of the operation, bleeding will recommence, and both the patient and surgeon will be put to much annoyance, and probably some anxiety. Of course, if you see a large vessel pumping at the bottom of a wound, it is best to close it by torsion; however, when the track of the fistula is very callous you cannot twist the vessel, and a ligature may then be applied. By careful attention to the details I have given a sinus may be opened to any possible distance up the bowel, or in any direction or depth, without positive danger, but on the whole in such instances I prefer, as I have before said, the elastic ligature.

If the rectal sinus runs up so high and the parts are so dense that you cannot get the point of your probe director out of the anus, and you prefer cutting, the safest and easiest way of operating is with the spring scissors and special director designed by me and first

made by Ferguson, of Giltspur Street; with this instrument you can divide fistulæ high up the bowel, however dense they may be, with great facility and quickness. The director is made with a deep groove, the section of which is more than three quarters of a circle; in this the globe-shaped probe-point of one blade of the scissors runs. Once placed in the groove it cannot slip out; so, having passed your director through the sinus, you introduce the forefinger of your left hand into the bowel, then insert the probe-pointed blade of the scissors into the groove in the director, and run it along, cutting as you go, the finger in the bowel preventing the healthy structures from being wounded. By this instrument operations usually very difficult, and in which without great caution you are apt to break your knife, are rendered quite simple. A country hospital surgeon told me that after seeing my description of this instrument he procured one, and uses it *in all* his cases of fistula; he says it is "operating made easy." I have not said a word about the old method of operating, usually described in works on surgery, because I consider the mode I have detailed so much more satisfactory and practicable.

It was in cases of sinuses running high up in the rectum, or where stricture existed in conjunction with fistula (the internal aperture opening *above* the stricture) that Mr Luke, in the year 1845, recommended cutting through the diseased structures by means of a fine piece of strong twine and a screw-tourniquet. It is by no means an operation easy of performance, but this is the way in which it is done, and it was, no doubt, very useful in some cases. Introduce a hollow

probe through the sinus and into the bowel, then pass a piece of thin wire through it, hook the end down and bring it out at the anus; then withdraw your probe, fasten the twine to one end of the wire and draw on the other end; by this means you get the twine to traverse the sinus, one end coming out at the anus, and the other at the external opening of the fistula; attach the twine now to your tourniquet, and screw up a little every day or two. In this way you may cut through very dense structures without any great danger; but it is often painful, and you are apt to set up inflammation and suppuration, and so may get fresh abscesses. I have had this occur in my own practice, and also seen it in that of my colleagues. But in all these cases the elastic ligature is so very superior, being quicker in action, easily applied, and absolutely painless, that I cannot conceive any one using Mr Luke's tourniquet now.

Sometimes, in a complete fistula, you have wind pass through it, and also fæces when the bowels are relaxed; but, as a rule, this does not occur, either in consequence of the smallness of the internal aperture, its situation, or its being valvular. Though, therefore, the passage of wind must be a certain evidence of a complete fistula, the absence of this sign should not induce the belief that there is no internal opening.

The most painful form of fistula, at the same time fortunately the most uncommon, is the blind internal fistula. I have seen many cases where the aperture was as large in circumference as a threepenny-piece; then the fæces, especially when liquid, pass into the sinus and create great suffering—a burning pain often lasting all day, after the bowels have acted. More-

over, these fistulæ are frequently severe in consequence of the burrowing caused by the irritating matters which get into them.

In operating upon a blind internal fistula, if you can feel, by the hardness externally, the site of the abscess, you may plunge your knife into it, and thus make a complete fistula, through which, of course, you pass your director. If you cannot feel any hardness or see any discoloration to guide you to the situation of the sac of the abscess, the best way of proceeding is to bend a silver probe director into the form of a hook, and then hook this into the internal aperture, and bring the point down close under the skin; when you cut upon it, thrust it through and complete the operation.

This requires a little dexterity and some practice to manage well, but it is by far the surest way of hitting off the sinus. These cases of blind internal fistula are very often not understood, and consequently are mistaken for other diseases. Not infrequently an internal fistula is connected with hæmorrhoids. I have seen many such cases. I think when strong applications are made to hæmorrhoids, suppuration may be set up, and then an internal fistula may form. Here is a case probably of that kind.

A gentleman came to me this year having great pain in the rectum on and after defæcation, generally worse after; sometimes coming on half an hour after leaving the closet. His history was that he had suffered from hæmorrhoids, which came down and bled, and that about seven weeks before seeing me he had undergone an operation for the cure of the piles. The operation consisted in thrusting a cautery iron into all the piles; great pain followed, and he kept his couch for fourteen days, when he began to feel better, and his piles did not come down, but there was discharge of matter. He was told that now all was right, and in a few days he might go about as usual, but after resting another

week he still had pain on and after stool and lost blood. He went into the country, but not getting well he at last sought my advice. On passing my finger into the rectum I found a deep large ulcer, and from it, running upwards and downwards, a sinus; the piles which still existed (two in number) were angry and tender, and very ready to bleed. I saw nothing but an operation could cure him, so slit up the sinuses, drew a straight knife through the bottom of the ulcer, bringing it right out so as to freely divide the sphincter. I also placed two fine ligatures on the hæmorrhoids. He had no bad symptoms, remarkably little pain, and was quite well in five weeks. Here the thrusting of a fine cautery into a pile set up suppuration and formed an abscess, which, bursting, made a great ulcer, which ulcer formed the internal opening to the sinuses.

These cases of *blind internal fistula* are instructive, so I will relate another :

I saw, with my late good friend Mr T. Carr Jackson, a professional brother, who had been suffering for some time from pain on defæcation, and burning afterwards, with discharge of matter always upon the motions; he was also much troubled with his water, having considerable irritation of the bladder. He had been operated upon, but without getting better; there was no ulceration, nor was there any fissure. On examining this gentleman I at once found what I expected—a small internal aperture about two inches from the anus; from this a sinus ran upwards and downwards. The anus (with its outside surroundings) was perfectly healthy. Mr Jackson, assisted by me, at once slit up the sinuses, and the patient was rapidly and permanently cured; all his bladder symptoms likewise vanished.

These cases of internal fistula require very careful examination to make a correct diagnosis. Often the surgeon finds an ulcer, but does not attempt to pass a probe into it. Truly it is an ulcer, but in addition it is the opening of an internal fistula which may burrow in more than one direction. Operations on internal fistulæ also require more than common care. If you find an internal opening in the bowel and a sinus running up higher from it, never lay the sinus open simply; in the first place, if you do, you are very

likely, after you leave your patient as you think quite safe, to have some hæmorrhage take place, and the blood will be retained in the rectum until so much has accumulated that the patient must pass it. In such a case always bring your incision out through the anus that no blood may be retained. Blood retained in the hot rectum foments the part, and prevents clotting and closing of the vessels, which are frequently large and increased in calibre by the long-continued inflammation of the part. Again, if you divide an internal sinus you make a deep cavity from whence pus or discharge can never thoroughly escape, and in consequence the wound will not heal.

Whenever you have to make an incision through the mucous membrane and into the submucous tissue in the rectum, without continuing your cut to the outer parts, beware of hæmorrhage. Plug the rectum well and use a styptic, either the subsulphate of iron or a saturated solution of tannin.

I have seen one death from this form of hæmorrhage occur in the hands of a very good surgeon, and another case recently, during the very hot weather, in which a patient most narrowly escaped with his life from a like want of care.

Internal fistula, I have already said, may commence by an ulceration of the mucous membrane; or perhaps more rarely, by a small abscess forming in the submucous areolar tissue; this may be the result of wounding or bruising by hardened fæces or foreign bodies swallowed. Of this I will mention two excellent examples I have seen, one in the practice of Dr Cottew, of Hornsey; and the other is that of Mr Kelson Wright, of Brixton. Here two ladies com-

plained of considerable pain in the rectum. On examination in each case a rounded hard swelling was felt about an inch from the verge of the anus. On more carefully investigating, a very small orifice was found running into this swelling. In both instances foreign bodies, *i.e.* fish bones, had been felt by the medical attendants before I saw the patients.

I am decidedly of opinion that when internal fistula commences by ulceration it is most frequently found associated with phthisis. I shall not go into this important question here, intending to devote the next chapter to the special consideration of this subject.

In operating upon women suffering from fistulæ (especially when the sinus is near the perineum), cut as little as possible, for anything like too free incisions are apt to end in incontinence of fæces, or, at all events, in such partial loss of power in the sphincter as to prevent the patient retaining flatus, which I need scarcely say is a most disagreeable result of an operation. I have been several times consulted by ladies on account of this condition, and in some cases I have been successful in restoring much of the lost power, to my patients' satisfaction. Of very great importance is the question of incontinence of fæces which may result from extensive operations on the rectum where the sphincter muscles are freely divided. A patient who suffers from inability to retain flatus or motion is in a most unpleasant condition ; in fact some sensitive persons would not undergo any operation which was at all likely to induce such a state, and would prefer any physical suffering rather than the perpetual fear of being in any way offensive to others. It behoves us, then, to consider how much we dare do

without danger of damaging or destroying the power of the muscles at the outer end of the rectum. Should you feel doubtful about the preservation of this power, you are bound to tell your patient what may happen, and then place the good and evil before him; if you do not do this and the patient recovers with much loss of the power of retention he is justified in complaining of your treatment. Incontinence of wind or liquid fæces results almost always from cutting the muscles, and principally the internal sphincter, in more than one place. If you have a double fistula, *i. e.* one on each side of the bowel running deeply beneath the internal sphincter and you divide both muscles, great loss of power you most assuredly will have. If you can leave ever so narrow a ring of the upper part of the band of internal sphincter you are fairly safe. On one side you may divide the sphincters quite through without danger if you will only take care that your incision is made quite at *right angles* to the fibres of the muscles. If you divide the muscles at all *obliquely* you never obtain good union, and even in comparatively slight cases you may get incontinence, I am quite sure this is the secret of operating in bad cases and not destroying the power of the muscles.

The method I have adopted in cases of incontinence of flatus and liquid fæces is the use of the actual cautery. I prefer the thermo-cautery of Paquelin. By its judicious application you can get much contraction and stimulation of the muscular fibres, and by diminishing the circumference of the anus obtain action of the fibres which are left. I have, now, in a great many cases effected such improvement, if not cure, as to earn the gratitude of my patients. Some time back I

operated on a lady from Doncaster. It was as bad a fistula as one could well see. Here after dividing several superficial sinuses outside the anus I found one deep sinus running under both sphincters and up the bowel beyond the upper edge of the internal muscle. I divided the sinus with the elastic ligature (taking care to cut at right angles to the muscle), and the recovery was perfect, and not the slightest loss of control resulted.

After an operation for fistula the bowels should be kept confined for about three days, a mild purge may then be administered, and full diet allowed. The wool usually comes out on the bowels acting, but if it does not come away I gently and gradually remove it.

If much wool has been put into the rectum to prevent hæmorrhage I generally take away a portion of it the next day, only leaving some at the bottom of the wound. If the whole plug is left in, the patient will probably be very uncomfortable, as he cannot easily get rid of wind, and the danger of primary hæmorrhage being over in twenty-fours hours there is nothing gained by retaining a bulk of wool in the bowel.

Very little dressing is required in the after treatment of fistula; in fact it is better to do *too little* than *too much*. If lint, wool, or any other foreign body is daily thrust into the wound it is not at all likely to heal kindly; a little cotton wadding or fine oakum laid quite gently in the wound to absorb the discharge and keep the edges from uniting, is all that is wanted. I have constantly seen the healing process delayed by too great interference; probing, and putting lint and ointments or lotions into the sore. I very rarely use anything but the dry wool, and I am no advocate for

dressings of any kind; only when the wound is unhealthy or sluggish do I prescribe lotions; then, according to circumstances, black wash, carbolic acid, nitric acid, the persulphate or tartrate of iron lotions may be advantageous. The compound tincture of benzoin I have found to be an excellent application. For the first few days I have sometimes employed carbolised oil, 1 to 19, as it keeps the wound moist, but you must not go on long or your granulations will be destroyed by the acid, and the edges of the wound get quickly irritated, the cicatrization is thus retarded, when any irritation around the wound is seen, there are few better dressings than fresh pure olive oil; it sheathes the part, is very soothing and grateful to the patient, and under its use granulation goes on fast, the wound is probably nourished by the oil, and there is a remarkably small quantity of pus discharged.

Although the surgeon should not interfere with nature's work, he must be always on the watch during the healing process for any burrowing or formation of fresh sinuses; and I wish to state that such development is *generally indicated* by the sudden (and otherwise unaccountable) augmentation of the purulent discharge. Whenever a wound secretes more than its surface seems from your experience to warrant, be sure that burrowing has commenced, and search diligently for the sinus at once, for the longer it is left the larger and deeper it will get. Sometimes it is under the edges of the wound that it commences; at others at the end of the wound internally or externally, and occasionally it seems to dive down from the base of the main fistula. When the sinus is found I need scarcely say that as a rule it should be laid open

at once. One other point: always encourage your patient to tell you directly he has any pain in or near the healing fistula; never pooh! pooh! his complaints; often he will be the first to discover by the existence of some unpleasant sensation the commencement of a small abscess or sinus and will be able also to indicate its situation. While I am writing this, I have under my care a gentleman upon whom I operated three weeks ago for severe fistula on the left side and which has nearly healed; four days back he told me he had slight pain on the right buttock three inches from the anus. I examined but could feel nothing, and my patient told me all his abscesses on the left side commenced with the same sort of pain, and he felt sure another abscess was forming; and the very next day I detected deep-seated fluctuation. I immediately cut down and let out an egg cup full of matter, had this been neglected the result would have been serious.

There can be no fixed rules laid down for the treatment of these wounds; it is in getting them to heal quickly that the skilful surgeon is shown. When to administer stimulants, when tonics, to feed the patient well, yet not to over-feed him, are all points in which common sense, practical knowledge, and the observance of apparently small matters will best guide us. There are few surgical cases that call more for intelligence and watchfulness on the part of the surgeon than the after treatment of a bad fistula. I have often seen patients whom the best and most eminent surgeons in London have utterly failed to cure, because they left the patient after the operation almost entirely in the hands of persons who had not

much experience, and who did not know what to expect and guard against. During the healing process do not purge your patient much, but take care that the bowels are fairly relieved; this I generally accomplish by a mild alterative pill and some Friedrichshall water or other gentle laxative.

It is important that the recumbent position should be kept for some time, its duration must depend upon the state of health and the extent and depth of the wounds; too early or too much standing or walking about will not only delay, but sometimes entirely prevent cicatrization. The more I see, the more confirmed I am in this opinion. The sooner you can get the wound to heal the better, for it stands to reason that the longer the wound remains unhealed the greater is the chance that some fresh abscess or sinus may form. You never ought to consider your patient quite safe until all sinuses or wounds are healed; and if they go from under my care before that, I always say you must take the responsibility upon yourself. I do not keep my patients long *in bed*, but I make them recline upon the sofa; this is especially advisable in delicate constitutions.

Never, if you can avoid it, operate upon a fistula that is from any cause acutely inflamed.

While inflammation is going on fresh sinuses are likely to form, the areolar tissue breaking down so readily; if you operate under these conditions, failure is almost certain to ensue. All you ought to do in such a case is to make a free depending opening, and keep the patient at rest until the inflammation subsides, the sac of the abscess contracts, and the formation of sinuses for a time is completed; then, and only

then, your operation stands a fair chance of succeeding.

In old-standing cases of ulceration and stricture of the rectum, fistulæ almost invariably form, but the internal opening is very rarely above the stricture, where, one would think it ought to be; sometimes it opens into the stricture itself, but nearly always *nearer the anus than the stricture*. The treatment of these cases will be considered in the chapters on Stricture and Ulceration.

It is a rule with me never to despise a small fistula, more especially if it be directly dorsal or perineal; often when you divide a seemingly most trivial sinus, you find from the opened track a deeper one passing up the bowel, and this as I have pointed out is the danger you may run in using the elastic ligature.

Moreover, when this is not the case, slight fistulæ are not rarely difficult to heal. I have been many times much troubled by them, and this is generally the case when they run through the fibres of the external sphincter, and not quite beneath them, so that in operating only a portion of that muscle is divided. The late Mr Salmon was in the habit of saying when he had laid open one of these fistulæ: "Now I have made a fissure, and I shall proceed to cure it," and he then drew his knife along the base of the sinus so as to entirely divide the external sphincter. Mr Salmon was a man of very acute observation, and I am sure in many such instances this practice is the best that can be adopted. I do not say it is always necessary to make a *deep* incision through the sphincter, but I always make one through the muscle in superficial dorsal fistulæ, and I am confident if you neglect this

precaution you will often have difficulty in healing these apparently very trivial sores. If they do not cicatrize quickly they become very much like fissures in appearance, and the patient will suffer pain more or less severe after, as well as at the time of, defæcation. Here is an illustrative case:

A gentleman had been operated upon by one of my colleagues for fistula and got well, but after some months another abscess formed on the site of the old wound, this burst. When I saw him there was a very small fistula, nearly dorsal, not deep, but tunneling under the old scar, I opened this—in a fortnight it had not healed—no burrowing had taken place. I touched the sore with nitrate of silver, and ordered him some nitrate of mercury and opium ointment, but still it did not heal, and in another fortnight he began to complain of pain, lasting an hour, more or less, after the bowels acted. I now saw that without a freer use of the knife it would not heal at all, and might, and probably would, get deeper; so I persuaded him to lay up for a few days, and I drew a fissure knife along the wound, beginning above it, and coming below the external end of it, and I took care to go right through the sphincter. This proceeding settled the matter; in about a fortnight he was quite well, and he has remained so. This case made a deep impression upon me, as I saw that the slight incision through the base of a fistula in this class of case is of no moment when you are operating, and it may save you some anxiety, and perhaps discredit also, afterwards.

Here is another case:

A gentleman with an apparently very small perineal fistula went to an eminent surgeon; it was so slight that the surgeon recommended him to be operated upon at once in his consulting-room; this was done and the patient went home; after five weeks the wound not having healed I was requested to see the patient, and I found from the bottom of the small wound there ran a deep sinus up the bowel and also forwards nearly to the scrotum. I do not say that these sinuses might not have formed since the first operation, but it clearly shows how careful one ought to be both in diagnosis and prognosis. A certain cure had been promised in this case in a few days.

CHAPTER VI

FISTULA IN CONJUNCTION WITH PHTHISIS

From a surgical point of view I wish to consider phthisis as a complication of fistula. It would doubtless be more correct to regard fistula as one of the complications of phthisis, but I think it better for my purpose to put it in the way I have.

This subject is one of considerable importance, and has scarcely, I think, received from any author the attention it deserves. The majority of writers upon fistula have simply expressed the opinion that in phthisical patients no interference should be attempted with the fistula, generally contenting themselves by stating that if any operation be performed the wounds will not heal and the patient's life will be shortened. It is the opinion of some eminent men that fistula has really the power of arresting, or at all events retarding the chest affection, and on that ground they would deprecate any operation. This opens up a very interesting question, which I shall endeavour presently to, in some degree, pursue.

There are other authorities of great experience in consumption who have expressed the belief that the co-existence of fistula and phthisis is by no means a common one. Andral and Louis both state that they

had very rarely observed a conjunction of the diseases. Andral in fact, says, that out of 800 patients affected with phthisis he only noticed one case of fistula. According to Louis tubercular ulceration is very common in the small intestine, and but very rarely found in the colon and rectum. The same doubt as to the prevalence of fistula in phthisis has been expressed to me by eminent physicians whose opportunities of seeing pulmonary affections have been most extensive. Upon this point I beg to make an observation:—I have not the slightest doubt that there are immense numbers of phthisical persons in whom no fistulæ exist, but I have also no doubt that there is a very large number of cases of fistula in which there is tubercular disease of the lungs.

A patient with disease of the lungs going to any of the hospitals for phthisis does not say anything about his fistula to the attending physician—he speaks only of his chest; but the same man comes to me at St Mark's saying that he has a fistula; I perceive, perhaps at once, that he is consumptive. Of course the physician cannot see that the phthisical patient has a fistula, and the question is very rarely put; of this I am certain, as patients say, "I am attending at such a hospital for my cough." When I ask, did you tell the gentleman you saw, that you had fistula? their reply almost universally is "No, sir, I did not."

For my own part I am quite convinced that a very considerable percentage of fistulous patients have more or less of tubercular lung affection. I have endeavoured to find out what the percentage is, and I have carefully gone over my last seven years in private practice, from 1871 to 1877 inclusive, and I find that

out of 792 cases of fistula seen by me during that period, 124 had phthisis either active or latent, or such symptoms as foreshadowed the appearance of phthisis, such for example as narrow and flat chests, winter cough, continuing long through the spring, readily taking cold, feeble circulation, and incapability for sustained physical exertion, also that facial expression which is not uncommon, and I will add that a bad family history was frequently co-existent.

I will here quote the opinions of those entitled to respect on the question of operation on phthisical patients.

Dr Bushe, of America, in his really admirable treatise observes, "It is very apparent that a great many fistulæ depend upon disease of the lungs, therefore we should not operate upon them, else the healing will give rise to an increase of the pulmonary disorder and curtail life."

Mr Quain says, "When the symptoms of tubercular disease of the lungs are present the operation for fistula is not allowable."

Mr Curling does not express any opinion upon the question of operation, although he notices the frequent concurrence of the two maladies.

Mr Erichsen in his 'System of Surgery' objects to the operation save in a few picked cases.

In 'Holmes' System of Surgery' the subject is dismissed with this observation:—"If a fistula be cut when a patient is suffering from phthisis, the wound, in the majority of cases, will not heal." This I am bound to say is not my experience.

Miller say, "In phthisical cases the wound in all probability would not heal, and supposing that it did

heal, the result would probably be most injurious on the system, the pulmonary disease advancing with fresh virulence on the closing up of an outlet whence purulent and other products had been long habitually discharged."

Dr Theophilus Thomson states that the co-existence of fistula with phthisis appears to retard the progress of the latter disease, acting as a derivative.

In the recent works on phthisis to which I have had access there is no reference made to the subject I am treating.

Dr Bristowe, while mentioning the frequency of tubercular ulceration of the large and small intestines, does not allude to fistula in conjunction with phthisis.

When we find an opinion so decidedly and generally expressed by men of acknowledged ability and experience of the subject on which they treat, we very naturally and properly hesitate to call in question their judgment; but, on the other hand, we should never be prevented from inquiring carefully and diligently as to the grounds upon which that conclusion has been based; and should opportunities present themselves we should test whether the opinion is founded on fact. I have always thought that an universally wide-spread belief, though perhaps exaggerated or distorted, has some considerable element of truth which had served for its origination, but, at the same time, there is nothing more likely to lead to error and stifle the spirit of inquiry than a too easy acquiescence in what may be called "popular creeds."

It must be obvious to everybody that to operate upon a patient with confirmed and advanced tuberculosis would be a positive cruelty, and would un-

doubtedly hasten his inevitable fate; but there are different forms of phthisis, some evidently not so destructive as was formerly imagined; and we know that many persons whose chests at one period of their lives exhibited undoubted signs of breaking down of pulmonary tissue, the formation of cavities, &c., ultimately recover, and attain a fair old age. Every surgeon who has been much in the post-mortem room, must be familiar with the fact that, in old persons who have not died of phthisis, repaired vomicæ and cretification of deposits, probably tubercular, are not uncommonly found. I am quite certain that there are many sufferers from lung affections complicated by fistula, who, because they are said to be phthisical, have nothing done for the cure of their fistulæ, and whose lives in consequence are rendered much more wearisome and wretched than they might have been if an operation had judiciously been performed.

For my own part, I do not think we have many, if any, clinical facts tending to show that the operation for fistula in phthisical patients renders the lung affection worse, or makes it more rapidly progressive. In saying this I must not be understood to advocate wholesale indiscriminate operations upon *tuberculous* patients; but I mean that if care be taken in the selection of the proper cases, avoiding interference if possible with *rapidly advancing* phthisis, and the operation be performed discreetly at the right time of the year, and with favourable surroundings, the patients will generally do well, and be benefited, and not damaged by the cure of their rectal malady.

I have had several cases, which certainly at first

sight appeared to contradict what I have just stated, and I will relate an example :

A man, æt. 35, was admitted into St. Mark's Hospital in the spring of 1867. He was not absolutely an unhealthy looking man, but he was delicate : he was dark and hirsute, moderately well nourished ; the chest was fully developed, there was no dulness on percussion. He had never spat blood, but was very liable to cold, and always had a winter cough. He had a fistula of the blind internal variety, which caused him a good deal of suffering, the aperture in the bowel being large and open.

Now, had this man not been in much pain, in all probability I should not have operated upon him, or at all events I should have postponed doing anything until the summer had more advanced, as I really did not at all like the look of him, but I thought his case warranted an operation, the more especially as it did not seem that a severe one was necessary. Three days after the operation he was attacked with difficulty of breathing, and on examination it was found that there was pneumonia of the upper part of the right lung ; two days later than this he had an acute attack of hæmoptysis ; after a time he got better, but there was evidence of breaking down of lung tissue. As soon as possible I sent him out of the hospital to go into the country ; he returned much better, with the fistula fairly healed, but I am afraid that as far as his chest was concerned he was in a bad way.

Altogether, I have had perhaps a dozen such cases in hospital practice exactly resembling the one I have related, so much so that it is unnecessary to give them in detail. The general circumstances are these :—A

fistula, not in a very consumptive-looking patient, suspicious appearance and history being all that could be made out. The patient is operated upon, and in four or five days inflammation of a lung and hæmoptysis sets in, this being in nearly all the cases the first attack. Now, one is not unnaturally led to conclude that the operation is the active cause of the sudden accession of the lung symptoms in these cases; but after all it may not be so; there are other factors to be considered. These may be mentioned: the natural excitement preceding and attending the operation; the effect of anæsthetics; the different, and probably colder and "draughty" air of the hospital wards; and the *sudden taking to the recumbent position*, by which, in lungs predisposed to disease, statical engorgement may be readily set up, and pneumonia follow. This last I think a very important element in the phenomena; and from this I draw a lesson—never confine your patients who have a consumptive tendency entirely to bed. I let them recline on the sofa, and sit on air cushions from the day of the operation, and I really think this has a great deal to do with the result. You may accept it as a fact that phthisical hospital patients do not do nearly so well as phthisical private patients; and good feeding, nursing, and the comforts of a home, may be credited to a great extent with this.

Those gentlemen who object to operating in any case upon a phthisical patient, give different and rather contradictory reasons for their objections. Some say, "Do not operate, for the wound will not heal, and the *increased* discharge will be detrimental;" others, "The *healing* of the fistula will be injurious to the patient, as the discharge prevents or retards the progress of

the chest affection." I have this remark to make here; that when a fistula has kindly healed I never knew a phthisical patient to be directly the worse for it, *i.e.*, I have never seen the chest affection aggravated or suddenly get worse on the *closing up* of the wound. I think the idea that the discharge retards the progress of the lung disease is rather a remnant of the old doctrine of issues, setons, and derivatives, than a positive fact.

Although I say that hospital patients do not as a rule do well, yet I have had many satisfactory results, even where such could hardly have been anticipated. I will detail some.

A man, æt. 29, was admitted into the hospital under my care; he had decided dulness at the apex of the left lung, and had spat blood frequently, and always had winter cough. He had a complete fistula, with a very patulous and large internal orifice, into which fæces were constantly passing, and he consequently suffered much, and was very anxious to obtain relief. On this ground I determined to operate. I did not confine him to bed more than a few days. I fed him well, and gave him cod-liver oil and tincture of the muriate of iron during the treatment, and I only kept him in the hospital for nine days. He did very well, the wound healed, and as I have seen him since, I know that his chest affection has not progressed.

Here is a very unfavorable case which, by a little cautious treatment, did well in the end.

A police constable, æt. 29, came to St Mark's in the summer of 1867; eight weeks previously he had been operated upon for fistula at St Mary's Hospital. He was undoubtedly consumptive; some time ago had hæmoptysis; he sweated at night, and was very thin and feeble. On examination an unhealthy wound was to be seen involving the bowel; the edges overhung, were livid, and irregularly ulcerated; the mucous membrane of the bowel was undermined to the extent of two inches upwards. A deep incision had been made through the sphincter, and he had no power to retain wind, or his motions if at all relaxed. He coughed a good deal, and expectorated freely; he was very depressed in spirits. It is difficult to conceive a

more lamentable failure of an operation; he was in all respects materially worse for what had been done. I scarcely think, had I seen the man at first, I should have interfered with him at all. The question was what could be done. Finding that he had friends in the country I advised his going away, and told him to live in the open air all day long, to drink as much milk and cream as his stomach would digest, and to take a teaspoonful of cod-liver oil, and fifteen drops of the muriated tincture of iron, three times in the day. He had never been able to take the oil, but I managed to overcome his repugnance by giving him one drop of nitro-benzole with every dose, for which hint I am indebted to my friend Dr Stone, of St Thomas's Hospital. The patient came back in about six weeks very much improved in general health; he had gained weight and strength. His wound looked healthier, but intrinsically was in much the same condition. I now did not dare to take him into the hospital, fearing the confinement and air; but I thought something might be done to alleviate his condition; so I pared off the overhanging and devitalized edges of the skin, and laid open the sinus under the mucous membrane; I did not confine him to bed at all. A few days after doing this I painted over the sluggish base of the wound with blistering fluid, and thus got the whole wound to granulate. After about five weeks it healed; he recovered very considerable power in the sphincter, and altogether was in a wonderfully more favorable condition than when I took him in hand. To show what an improved state of health he was in I can state that he was able the whole of the following winter to take his turn of night duty without having been once on the sick list.

There is a circumstance which occasions me sometimes to interfere in a case of fistula in phthisical patients, and that is, the mental depression which the rectal affection creates. Frequently the sufferer thinks much more about his fistula than he does about what he calls "his little cough," and is quite dismayed and brought to despair when you tell him that you cannot do anything to cure him. I am certain that few things conduce more to the rapid progress of phthisis than mental anxiety and loss of hope.

As illustrating this I will relate the case of a young man named Henry, who came to me at St Mark's in the year 1866.

He was in great mental distress because of a fistula, which a well-known surgeon had told him nothing could be done for as he was consumptive. It was true that this patient had suffered from hæmoptysis some time ago, and looked far from being a promising patient; moreover his family history was unsatisfactory. On examining him I found that his fistula was evidently a phlegmonous one, and not scrofulous, *i.e.* it began as an abscess, ran an acute course, opened externally, and did not communicate with the bowel, so I thought I could operate upon him with safety. The mere fact of his belief that he would get rid of a most troublesome and annoying disorder rallied him at once. The day following the operation he looked much better than he had done before it, and without any interruption he quickly got well. I watched the man for more than twelve months, and most assuredly his lung symptoms had made no marked advance.

I relate cases which occurred some years since, because we have the opportunity of seeing how they terminated.

In the spring of 1866 I operated upon a gentleman, a patient of Mr Burroughs, of Lee. He was decidedly but not hopelessly phthisical; the undermining of skin in this case was very considerable, and he suffered so much that I had not the least doubt about the propriety of attempting to relieve him. The wound was large, but we had really no difficulty in getting it to heal. I saw a relative of this patient lately who informed me that he continued well and had no return of the fistula. I believe in this case the chest symptoms were absolutely benefited by the operation.

A young man was brought to me by his friends in August, 1864. He was twenty years of age, and had a decidedly phthisical appearance; he had a circumscribed flush on his cheeks; was thin, and had a rapid feeble pulse; he was a railway clerk, and had been leading a rather irregular life for twelve months previous to his present illness; he had never suffered from hæmoptysis to any extent, but had spat mucus streaked with blood not infrequently. There was some dulness over the apex of the left lung, and feeble inspiratory murmur. He took cold on the slightest provocation; he had lost a sister by consumption, and also his maternal aunt; his mother was far from a healthy-looking woman; but his father was strong and had no tendency to pulmonary disease. This was a case I would willingly not have interfered with, but the patient was suffering so much that I determined to try, after improving his health, what I could do for him. The fistula commenced last Christmas as an abscess, which opened spontaneously. When I first

saw him he had a sinus on one side of the bowel and an unopened abscess on the other side, and was suffering a good deal of pain. The abscess I opened at once. I put him on cod-liver oil and tinct. ferri muriatis, and soon sent him away into the country. He returned very much better in health, but the sinus had burrowed round behind the anus and joined the abscess I had opened, thus forming the not uncommon horse-shoe fistula. He was now importunate for something to be done, and although I was very dubious about the result, I yielded to his wishes. There was one good point in his case which encouraged me, and that was, the discharge was tolerably healthy. On the 23rd of September I operated, not making more incisions than were necessary, but freely removing the over-lapping edges of skin. He took full diet—wine, beer, and anything he fancied—from the day of the operation, and (with the exception of a little burrowing under the skin towards the perineum, which I was obliged to lay open) he made a good recovery. On the 10th of November he was quite well, and was weighed, and showed an increase of *fourteen pounds* since the operation. This lad died of phthisis three years after. The fistula never recurred, and for more than two years he enjoyed fair health.

In the year 1867 I operated upon a patient who was a very delicate and decidedly consumptive person; he suffered much from winter cough, and had spat blood several times; there was a history of phthisis in his family. His fistula was a complete one and caused him a great deal of pain and inconvenience, interfering most materially with his taking any walking exercise. I operated upon him, and was a few weeks later compelled to lay open another sinus, which had either formed since or been overlooked by me. The wounds were slow in healing, and required a good deal of attention, but finally they cicatrized soundly, and the patient's health was much benefited by his freedom from pain and his renewed capability of walking. I saw this gentleman very lately, he is still delicate, but enjoys a fair amount of health, and the fistula remains still healed* most assuredly he has not been damaged by what was done for him.

I operated some two years back upon a patient who was under the care of Dr Palfrey and Dr G. Fowler of Kennington. This gentleman had undoubted phthisis with vomicæ in his lungs, and at the same time he suffered so much from an internal fistula with a large opening that I felt compelled to try and relieve him. Accordingly I, with the concurrence of Drs Palfrey and Fowler, opened the fistula. The wound slowly but surely healed and from the day of the operation he lost his pain, and lived about two years in comparative comfort—a longer time than was anticipated by his medical attendants.

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* Eleven years after the operation.

I saw, in conjunction with Dr Wilson Fox, a gentleman about 28 years of age, who had been some time in India, and who had suffered from pleurisy and pneumonia, associated with the deposit of tubercle; he also had a complete fistula, which gave him great inconvenience and, at times, pain. He was very anxious to have something done for this, and Dr Fox, as his lung condition was stationary and no active disease present, was of opinion that there was no objection to an operation on the fistula; so I cut through the sinus with the elastic ligature without occasioning the patient any pain or confining him more than forty-eight hours to his room; four days sufficed for the ligature to cut through, and the wound soon healed, and from this he derived great comfort. After about eight months he caught a cold, and his chest-symptoms recurred with much cough, and the cicatrix of the wound in the part near the anus broke down, but this did not trouble him much, and from time to time the wound healed and reappeared; but there was no doubt in the mind of the patient as to the advantage of the operation, and Dr Fox could not say that any disadvantage had accrued. The patient was one of those men who never will take care of themselves, and who habitually smoke and drink too much. With all that, two years after the operation he was still living.

The question of *cough* is a very important one when weighing the probabilities of an operation doing well or ill. I believe severe or frequent cough, no matter from what it arises, most inimical to the well-doing of the patient.

A medical man came from the country a few months ago to be operated upon by me for a complete fistula; there was not the least suspicion of phthisis, but he had a bad cough. I advised him to get rid of his cough before being operated on, but he was anxious to get the matter over, and thought his cough would not trouble him. However, although the fistula was a simple one, I could not get it to heal until his cough was cured, and he was four weeks in town, when, under favorable circumstances, fourteen days would have been ample time to have effected the cure.

From this arises a maxim I always adhere to:—

never, if you can possibly help it, operate upon a phthisical patient when the cough is constant; and never operate in unfavorable weather. If your patient is in good circumstances send him to Brighton or Hastings or some other salubrious, genial place, and perform the operation there. You will find he will get well in less time, and possibly save you anxiety.

Assuming, as I think we safely may, that many patients, the subjects of fistula, have also a tendency or predisposition to phthisis, it will not be unprofitable to consider for a moment why this should be the case. The conjunction has been ascribed to tuberculous ulceration of the bowel, and, no doubt, in some cases this is true. I am quite sure now that many cases of incurable ulceration in the rectum are tubercular, and this portion of the bowel when examined after death presents precisely similar conditions to those which are found in other parts of the intestine well known to be thus affected. The ulcers are deep, and spread at the edges, joining others, and undermining the mucous membrane, leaving broad or narrow bridges. In this form of ulceration, as a rule, pulmonary phthisis does not co-exist, or, at all events, only shows itself very late in the disease. In the case of a young gentleman I saw several times with Sir James Paget and Sir William Gull, the ulceration was very marked, and extended high up the rectum, but no chest affection became apparent until three years had elapsed from the commencement of the bowel disease. In the many cases of phthisis I have seen in which fistula formed, there has been no diffused ulceration of the rectum, possibly because the disease spent itself mainly upon the lungs; and in the case of

tuberculous ulceration of the rectum, anal fistulæ are not common.

The rule in my opinion is, that fistula in patients who have a predisposition to pulmonary consumption commences by a breaking down of the connective tissue beneath the mucous membrane of the rectum; thus a small abscess is formed, and this makes its way into the bowel very rapidly, leaving a large patulous aperture. Therefore, I think we may safely say that the same condition of health or constitution which renders a patient vulnerable to pulmonary affections generally, renders him also prone to fistula. These people are usually thin and ill nourished, and have very little power of resistance against injurious influences; inflammation, which in robust individuals would only end in the effusion of plastic material, in them terminates in the production of numerous and very perishable cells, which readily form themselves into purulent collections, especially in lax tissues. Probably, I should say, the want of fat in the ischio-rectal fossa and its neighbourhood disposes to the formation of an abscess there. The veins have to sustain a considerable column of blood, and they are moreover exceedingly ill supported, so that local congestions and feebleness of circulation must be a common condition. I am inclined to think that these general causes are usually sufficient to explain the phenomena without any reference to tuberculous depositions.

Fistulæ in persons of a phthisical tendency are marked by certain peculiarities which I think important to notice. Some I have already casually mentioned, but I will here state them clearly.

They have a disposition to undermine the skin and mucous membrane with remarkable rapidity, but not to burrow deeply.

The internal aperture is almost always large and open—on passing your finger into the bowel you can feel it most distinctly, often the size of a three-penny piece.

The external opening is also frequently large and ragged, not round; it is irregular in form; the skin surrounding it is livid and flapping; when you pass your probe into this aperture you can sweep it round over an area of more than an inch, and not infrequently the skin is so thin that you can see the probe beneath.

This is a very different condition from the external orifice of a fistula in a healthy person, which is usually small and *pouting*, and the skin is not detached to any extent from the underlying structures.

The discharge is thin, watery, and curdy, very rarely really purulent.

The *sphincter muscles* are almost invariably *very weak*. When you introduce the finger into the bowel you are hardly sensible of any resistance being offered. I think this a most important indication of constitutional weakness, and from it I derive this practical lesson:—*When operating upon a patient with phthisical proclivity interfere as little as possible with the sphincter muscles, especially the internal.* If you divide the sphincter much incontinence of fæces will almost certainly result.

It is common to observe in these patients much longish, soft, silky-looking hair around the anus.

With any of these peculiarities strongly marked I am always suspicious of my patient's strength, with all

of them or several of them present, I feel certain of his condition and act accordingly.

I should say from my experience, if you have a phthisical patient suffering from a fistula which gives him much pain or inconvenience, by taking certain precautions you may relieve him of it without running any risk of damaging him. When a case of this kind comes to me I am never in a hurry to operate. I like to watch the patient for a little while and observe whether the lung disease is advancing; find out if the cough is constant; often these patients will tell you that they cough very little, when their friends notice that they do so almost perpetually. Wait, if you can, for genial weather, when your patient need not be confined to a close room. As to the operation, I have already said that although it must be *thorough*, you should interfere with the sphincter as little as you can, and fortunately it is not usually necessary, as the sinuses are mostly superficial. After the operation let the patient have good diet; by all means, plenty of cream and milk; if he can take it he may have a little cod-liver oil and steel and quinine, separate or combined; do not confine him to bed; let him lie on a mattress; if you can manage it let the bed room face south or west, and get plenty of fresh air into the room, the patient lying well covered up on a couch by the open window for hours, in fact, nearly all day. Do all you can to keep him amused and cheerful; avoid poulticing the wound; disturb it as little as possible, keep it clean by gently syringing with a solution of carbolic acid (1 in 50) night and morning, and well dry afterwards; dress with wool; ointments as a rule do not suit, but astringents are useful; the compound

tincture of benzoin agrees very well with these wounds. Do not be in a hurry to get the bowels open, and manage this rather by diet and laxatives than a purge; if you set up a diarrhœa in these patients it will give you trouble and delay the healing of the wound. Unless there is furring of the tongue, headache, or loss of appetite, I do not think the bowels need be relieved more than once in three or four days. All these matters may appear so trivial that there is but little occasion to mention them, but I am sure that attention to apparent trifles will make just the difference between success and failure with the patients about whom I have been writing.

CHAPTER VII

HÆMORRHOIDS

Almost from time immemorial hæmorrhoids have been divided into two varieties, viz. the external and the internal, often also popularly called blind piles and bleeding piles, and this classification is founded upon a true pathological distinction; for, although it may be correctly said that external piles may and do encroach upon the mucous membrane, and so are partially internal, and further that internal piles, by reason of frequent prolapse, become more or less external, yet in the majority of cases the difference is well-marked, and admits of not the slightest doubt as to the diagnosis.

In the *external* form the observer will perceive that they are either the true hypertrophies of skin, exaggerations of the natural rugose state of the anus, or rounded and elongated venous-looking tumours which pass up into the bowel.

In the *internal* kind he will observe that they are tumours originating within the anus, but which have been forced down outside, and even may have put on a pseudo-cutaneous appearance from exposure; having been, for more or less time, subjected to the same conditions the skin is. In addition to this, he will notice there are also in very many cases cutaneous

excrescences which are plus the internal piles. Should the surgeon still have any doubt as to the kind of hæmorrhoid he has to deal with, let him return all the protruded part that he can within the sphincter ani by gentle pressure—at the same time directing the patient to retract or draw up the lower part of the gut, and he will then find out what is redundant skin and what is internal hæmorrhoid and prolapsed mucous membrane of the anus; should the whole mass be irreducible it must be treated as a case of internal hæmorrhoids. I have been rather particular in these introductory observations, because I have so often seen considerable doubt in the minds of practitioners as to the character of the affection they had to combat, and a correct conclusion is all-important, especially if any operative procedure be meditated.

External Hæmorrhoids

This affection is so prevalent that very few persons, either male or female, arrive at middle age without having in some degree suffered from it. They occur almost equally in the robust and the weakly, in the rich and the poor, in the active and sedentary. No doubt some occupations and modes of life conduce to the production of external hæmorrhoids more than others; still, I repeat, there is no class of society or state of constitution which can be said to be entirely exempt. The skin around the anus and the mucous membrane at the verge of that aperture are remarkably delicate in structure, they are also profusely supplied with nerves and small vessels; from these

facts it arises that anything tending to irritate that region may cause congestion and inflammation of the part, and result in an attack of piles. To certain anatomical peculiarities of structure in the rectum and its veins, supposed to be the predisposing and also the active cause of hæmorrhoids, I shall refer further on. Again, obstructions of the liver or portal system, fæcal accumulations, or anything rendering the return of blood from the rectum difficult, is likely to conduce to the same end. From this we can readily imagine that a great variety of causes may bring on an attack of piles; the following may be mentioned:—Constipation, often associated with chronic spasm of the external sphincter muscle, diarrhœa, too good living—especially the consumption of large quantities of meat—very coarse fare, indulgence in alcoholic drinks, excessive smoking, violent and prolonged exertion, sedentary occupation, exposure to wet or cold, discharges from the bowel resulting from internal diseases, the pressure caused by the uterus during pregnancy, uterine displacement, friction from clothing, and the use of printed paper as a detergent—especially the cheap papers from which the ink comes off on the slightest friction—the neglect of proper ablutions (this is very important; many persons seem to forget that the anus requires quite as much washing as any other part of the body), straining, however induced; all these are among the common causes, predisposing or exciting, of external hæmorrhoids.

I have already said that two varieties of external piles may be recognised; the first ought to be called hypertrophies or excrescences of the skin; the second, sanguineous venous tumours. When you look at

either of these in an uninflamed state, you would think them harmless enough; in the one case you would only observe around the anal orifice a certain redundancy of the skin forming little flaps or tabs more or less pendulous, in addition to the small radiating corrugations seen in the normal state; in the other case you perceive veins, blue, rather raised above the surface, and running up into the bowel, resembling, indeed, varicose veins. Now these conditions, so innocent in their appearance, are prone, at a very trifling provocation, to take on active inflammation, and to cause the patient an amount of suffering quite disproportionate to the pathological appearances.

Let us look at them when inflammation, set up by any of the causes we have mentioned, has set in. These small tabs of skin are much increased in size; they may be very swollen, œdematous, and shiny; they are exceedingly painful to touch; sometimes they ulcerate, or suppuration may take place if the inflammation runs very high, and hence small but painful little fistulæ arise. At times the œdema is so considerable, as to extend into the bowel, and form a large swollen ring of skin and everted mucous membrane all round the anus.

So with regard to the sanguineous venous hæmorrhoids, they are swollen into ovoid or globular blueish tumours, very hard, and exquisitely painful; they can be pinched up between the finger and thumb from the tissues beneath, and they feel as if a foreign body were present there. Sometimes, but rarely, they can by gentle pressure be emptied of their contents; but this proceeding is not followed by any benefit to the patient, as in a few hours they become more painful and larger than

before. These tumours may be single, or two or three may be present at the same time; by irritation they set up spasm of the sphincter and levator-ani muscles, so that they are drawn up and pinched, thus adding much to the patient's suffering. Just as he is falling to sleep a spasm takes place, and wakes him up—in addition there is a constant throbbing, and the sensation as if a foreign body were thrust into the anus; this excites the desire every now and again to attempt to expel it by straining, which, if indulged in, of course aggravates the pain. Often the patient cannot sit down, save in a constrained attitude, nor can he walk, and when he coughs the succussion causes acute suffering. When the bowels act, and for some hours afterwards, the distress is greatly increased, and the patient, if not absolutely confined to bed, is quite incapable of attending to his business. Accompanying all this there is general feverishness, furred tongue, and usually constipation. Such, then, are the symptoms of an acute attack of external piles, and if not a serious matter, it is one causing great worry and loss of time, an important point in these hard-working days. Moreover, one invasion predisposes to another. I have known many patients who periodically suffer what I have described.

There is a difference of opinion as to the mode of formation of these venous tumours; some consider them to be coagulations of blood in varicose veins, others as extravasations into the connective tissue. It is possible that both these views are correct. I am certain that I have often found clots contained in a distinct sac, formed of inflamed and condensed areolar tissue, without any communication with a vein that the

most careful examination could detect; and, on the other hand, I have in some cases been able to squeeze the blood out of the tumours into the vein; it may be, that in the early stage of the disease, the pile is simply a varicosity of the vein, but soon inflammation shuts the clot off from the trunk; and after a time, and repeated inflammations, the clot becomes enclosed in a sac; but, after all, the question to my mind does not seem a very important one, as it in no way influences the treatment to be adopted.

It is very desirable to notice the earliest, or rather the premonitory, symptoms of one of these attacks, as by this knowledge it may possibly be warded off, or at all events much mitigated. Not infrequently a little extra eating and drinking, without any absolute excess, is the exciting cause; an indulgence in effervescing wines or full-bodied ports or new spirits, being especially dangerous. The earliest symptom is a sensation of fulness or plugging up, and slight pulsation in the anus; there is also a tendency to constipation, inducing a little straining; this is frequently followed by itching of a very annoying character, coming on when the patient gets warm in bed, keeping him awake for some time, and inducing him to scratch the part. In the morning he finds the anus a little swollen and tender, and if he be an observant person with regard to himself, he will notice after a motion a slight stain of blood. Now, all this may pass off with the simplest care, and the slightest medication; but if the patient neglect himself, it will surely be the precursor of a more or less severe attack.

The treatment in such a case, should be abstinence from active exercise, rather spare diet, well-cooked

vegetables and fish, not much meat, no beer or spirits, and no wine if possible; if the patient must take some stimulant, a glass of light claret, with Seltzer or Vichy or Vals water, will be the best beverage. If he is a smoker, he must cut down his usual allowance; smoking often causes a sympathetic irritation of the throat and rectum. He may take a warm bath or a Turkish bath, and should wash the anus night and morning with warm water and Castile soap; after this, apply some glycerine and tannic acid, or some calomel ointment, or a lotion composed of one teaspoonful of the Liq. Plumbi subacetatis, added to a wineglass of fresh milk, which is very soothing. As to medicines, he may take a Plummer's pill, with a little taraxacum and belladonna, for two or three nights at bedtime; and in the morning, fasting, some effervescing citrate of magnesia, or this draught, which I find very useful on many occasions:—℞ Liq. Magnes. Carb., ℥ss; Potassæ Bicarb., ℈j; Syrup. or Tinct. Sennæ, ʒij; Spt. Æther. Nit., ʒss; Aquæ puræ ad ℥ij. One third of a tumbler of Feridrichshall water taken fasting, with twice as much warm water; or Carlsbad salts, will also have a good effect.

If the case be neglected, and advice is not sought until active inflammation has set in, and the symptoms I have described are in full force, you will save your patient much time, pain, and after trouble by snipping off the inflamed cutaneous excrescences, or in the case of the sanguineous tumours laying them freely open. The tabs of skin may be frozen by the etherizer, seized with a pair of toothed forceps, and quickly snipped off with a pair of strong scissors, the pain soon ceases and the wounds heal readily under any simple dressing.

Care must be taken not to recklessly cut away too much skin, or contraction will follow; so you must not make quite a clean sweep of it, but take off a portion only; that which is left will contract in the process of healing. The best method of opening the venous swellings is as follows:—Pinch up the tumour gently between the finger and thumb of the left hand, transfix its base with a curved bistoury, and cut out; at the same moment by pressure with the finger and thumb the clot may be extruded; place a piece of fine cotton wool at the bottom of the sac, and the operation is completed; the pain soon subsides, and the patient makes a speedy convalescence. The incision should be made in the direction of the radiating folds of the anus, as this allows more completely of the contraction of the skin. If these sanguineous tumours are not interfered with, the blood in them will in time become absorbed, and they ultimately form the cutaneous flaps already described. It is always well in these cases to ascertain, by means of an injection, whether there be any internal piles associated with the external; if so they must be attended to, or the patient will probably be made worse by any operation on the external hæmorrhoids.

If the patient will not submit to the operative treatment I have recommended, the swollen parts should be well smeared with extract of belladonna and extract of opium, equal parts, and a warm poultice, applied. This in many cases gives very speedy relief, and, as a rule, is much more efficacious than cold applications. But sometimes it happens that cold is found by the patient to be more soothing; in that case a lotion of Goulard water, with extract of opium and belladonna,

is useful, or ice may be pretty constantly applied. It does not do to freeze the piles with the ether spray as I have seen recommended, for as soon as the cold goes off, the pain is worse than ever. I have never seen much benefit derived from leeching. Some surgeons have insisted that the inflammation should be reduced before removing the piles by excision. I do not think there is any need for this; certainly the parts are very tender and sensitive, but this can be overcome by thorough freezing, and I am convinced that convalescence is much hastened by the removal of the inflamed and œdematous tissues, and as far as my experience goes, no danger in any way need be apprehended from the operation if it be properly performed. I much too often see these cases treated by drastic purges and gall ointment; this, I am bound to say, is not good practice, in the active stage it is harmful to the patient.

I have said that one attack of external hæmorrhoids predisposes to another; it is, therefore, very advisable for the patient so to live as, if possible, to ward off this repetition. Generally he should eat sparingly; and fish, fresh well-cooked vegetables, and ripe fruits should form a considerable part of his diet; he should avoid spirits and beer, and take as little stimulant of any kind as possible; strong coffee and highly seasoned dishes must not be taken; he should not smoke, or only very moderately indeed; he should take plenty of walking exercise, but it should not be violent nor continued to overfatigue; he should sleep on a mattress and never omit to wash the affected part night and morning with cold water; lastly, he should keep his bowels acting daily. If this cannot be accomplished

without some medicinal aid, he will find equal parts of the confections of black pepper, sulphur, and senna, a capital remedy; of this one or two teaspoonfuls may be taken every morning; or night and morning if required. I have had great experience in the use of the waters of Friedrichshall and Carlsbad in these cases, and I think them very beneficial, particularly in persons who are prone to congestion of the liver. Another remedy I find admirable, *i.e.* a teaspoonful of the compound liquorice powder of the German pharmacopœia taken in a wineglass of water, twice or thrice in the week at bedtime. A steady perseverance in the line of treatment I have suggested will, in all probability, eradicate the hæmorrhoidal tendency.

CHAPTER VIII

INTERNAL HÆMORRHOIDS

All those causes I have mentioned as likely to induce external piles tend also to the production of internal hæmorrhoids, but in addition we may name hereditary influence, diseases of the genito-urinary system, and the state of recovery from childbirth.

During pregnancy external venous hæmorrhoids are frequent, and these may, and do, often pass away after labour, in common with varicosities of the legs and labia vaginæ; but the reverse is the case with regard to internal hæmorrhoids; these most frequently make their appearance after parturition, when all the parts are relaxed and uterine involution is going on. I will not attempt to give any reason for this; I only state a fact I have over and again observed.

Our French confréres for long past have not been at all satisfied with the usually accepted explanation of the etiology of piles, either external or internal. They do not consider that any causes which are occasional can induce such an afflux and stasis of blood in the rectal veins as shall be productive of hæmorrhoids.

Neither, say they, sedentary occupation, excesses at the table, venereal abuses, passive pederasty, the

immoderate and prolonged use of enemata, drastic purgatives, nor habitual and severe constipation, can one or all *initiate* true hæmorrhoids. They therefore with praiseworthy diligence sought for the true predisposing cause in the anatomy and physiology of the rectum; and Professor Verneuil, the distinguished Parisian surgeon, says he has discovered that cause in the peculiar distribution of the veins and the course they take in the coats of the rectum a few inches above the anus. The preparations and dissections M. Verneuil made to illustrate and prove his views are now in the Dupuytren museum at Paris; and the correctness of the anatomy, and the deductions made from it, have, say recent French authors, not only been confirmed, but even proved by the dissections of Gosselin in 1864, Dubreuil and Richard in 1868, and lastly by Duret in 1877.

I shall endeavour as briefly and clearly as I possibly can, to place before my readers the anatomy as stated by M. Verneuil, because it is considered to give the reasons for a method of treating hæmorrhoids strongly advocated in France; but, as far as I know, little practised in England:—1st. Professor Verneuil considers that the superior hæmorrhoidal veins *only* are connected with the portal system and solely form internal hæmorrhoids; external piles being formed from the external and middle hæmorrhoidal which are connected with the general venous system, and do not or only in the most remote degree form connections with the superior hæmorrhoidal veins, and thus the two venous systems, portal and general, are practically distinct.

2nd. That the superior hæmorrhoidal veins com-

mence at the upper border of the external sphincter, and lie under the mucous membrane of the rectum. At a definite height of about 4 inches (10 or 11 centimètres) they perforate abruptly the muscular coats of the bowel, and unite to form the 5 or 6 large veins found in the meso-rectum, these then join the inferior mesenteric veins, which pass into the splenic and portal veins, and thus enter the liver.

3rd. Where the superior hæmorrhoidal veins perforate the wall of the rectum, Verneuil claims to have discovered that they pass through "veritables boutonnières musculaires," which muscular button-holes not being surrounded by any protective fibroid tissue, have the power of contracting and causing such stasis and congestion in the superior hæmorrhoidal veins as to constitute the "primum mobile" in the formation of internal piles. Dubrueil further calls attention to the fact, that the muscular button-holes are double and at right angles to each other, the first being formed by the circular fibres, and the second by the longitudinal fibres of the rectum; not only, says Verneuil, do these contractile button-holes constitute the passive, but also the active cause of hæmorrhoids, any intestinal irritation will produce violent and spasmodic contractions of the muscular apertures, these contractions are communicated to the levator and sphincter ani muscles, and a rapid development of internal hæmorrhoids will take place. Commonly in addition, those occasional causes (formerly considered as first causes) come into play, and the small varicosities found at the lower border of the internal sphincter (present even in infants, say the French) soon become fully formed piles. The practical outcome, from the above anatomy

and physiology by the French authors, is very important, viz. that for the cure of the great majority of internal hæmorrhoids, nothing is required but the gentle and thorough dilatation of the external and internal sphincter muscles; no ligature, no cautery, with or without clamp, is wanted, and no immediate removal of the piles needs take place. The anatomy of the rectum, given by M. Verneuil, has been known for many years, but only recently (in 1874) has the practice of dilatation been recommended for the cure of hæmorrhoids by that gentleman; and it appears to me that the discovery of that treatment was rather the result of accident than reflection and deduction from any known anatomy or physiology. The case which opened the eyes of Professor Verneuil to the advantages of dilatation is thus related by him:—"I was consulted by a distinguished gentleman who had for fourteen years suffered from anal pains supposed to be caused by fissure, but they in reality were caused by internal hæmorrhoids which had become procidented and irreducible; with this state not only had the patient's pains been redoubled, but he suffered such loss of blood as to bring him near to death; his anæmia was so profound that I considered the usual operative methods too dangerous to be undertaken, and as the sphincters were very contracted I contented myself by dilating them, and from that day the pain and loss of blood ceased, the piles were cured, and did not return." "Encouraged by this happy experiment," says M. Verneuil, "I hastened to put it into practice in other cases with most excellent result." M. Fontan a little later, not I presume knowing of M. Verneuil's success, also accidentally discovered that forcible dilatation of

the sphincters cured hæmorrhoids; for, says he, having dilated the muscles for the purpose of curing a fissure in a patient who also suffered from hæmorrhoids (June, 1875), I found with the cessation of the symptoms of fissure, disappeared also the hæmorrhoids, the constipation, the daily bleeding, and the prolapsus, and I was struck by this unhoped for result. (*Vide* 'Fontan on the Cure of Hæmorrhoids by Forcible Dilatation,' Paris, 1877.)

It would be presumptuous in me to dispute the anatomical facts set forth by Professor Verneuil and endorsed by such men as Gosselin, Dubreuil, Duret, and others; indeed, the dissections that I have been able to make, induce me to concur in the main points set forth by the learned professor; but, with all due deference, I cannot admit as a fact the almost absolute separation of the portal and general venous systems. I am quite confident that in the dissection of morbid specimens, near the anus, you do find a considerable communication between the superior, inferior, and middle hæmorrhoidal veins. One fallacy I would suggest arises in M. Verneuil's physiology, from the fact of his having injected the superior hæmorrhoidal veins from the portal vein, thus forcing the injection in a direction opposed to the natural flow of the stream of blood. Again, admitting the correctness of the presence of the "button-hole" apertures through the muscular walls of the rectum, I should demur to the deduction made by M. Verneuil, that they cause by contraction an obstacle to the return of blood from the lower portion of the rectum; and on the contrary I should infer, that these contractile apertures really play the part of valves to support the column of blood to the

liver, and in place of causing stasis, prevent it by opposing regurgitation in congested states of that organ, and I would rather, in accordance with general physiological principles infer, that the contraction of the circular and longitudinal muscular fibres of the bowel favour, and do not retard, the upward flow of the blood; and I am not convinced, whatever may be the value of dilatation of the sphincters in treatment, that the physiology of M. Verneuil explains in a wholly satisfactory manner the causes and pathology of hæmorrhoids. One more point I would mention. In Professor Verneuil's thesis he makes no allusion to the part played by the arteries in the formation of piles; yet I should think no one could fail to note that hæmorrhoids are not merely varicosities of veins, but tumours, into the structure of which considerable arteries enter. When further on I discuss the various methods of operating on hæmorrhoids, I shall give my views and experience of the treatment by dilatation.

Internal piles present several varieties in appearance, structure, size, position, and other characteristics.

They may be so small as to exhibit little more than an increased number and size of capillary vessels with thickening of the submucous tissue; in fact, there may be only a deep red velvety appearance of the mucous membrane, readily yielding blood, or they may be large solid tumours the size of an ordinary bantam's egg. Some hæmorrhoids are attended with bleeding of an arterial character, others with venous hæmorrhage, while some, particularly in their latter stages, do not bleed at all. Some lie quietly high up within the internal sphincter, and are only to be protruded by straining after the administration of an enema; others

come down always at stool, and whenever the patient makes any exertion, or stoops, walks, or stands about much; again, some are always down. This last only obtains in old-standing cases. These various conditions depend in great measure upon the duration of the disease and the condition of the sphincter muscles as to strength or weakness; a relaxed condition, such as frequently exists in women and in men of lax fibre, allowing the protrusion of even small hæmorrhoids on the slightest exertion. This may be specially noticed in the common case of a perineal hæmorrhoid in females who have borne children.

As a rule patients do not suffer much from internal hæmorrhoids, unless they become inflamed or are constantly coming down and getting compressed by the sphincter; hence the amount of suffering also depends in a measure upon the state of this muscle, as also does the amount of congestion of the piles themselves. Inflammation is very soon lighted up in these cases; unusual straining with a costive motion, a drastic purge, sitting on a damp seat, oversexual indulgence, or a little excess in alcohol or in eating, may be sufficient to start it. When the part is extruded and gets nipped by the sphincters, partial strangulation takes place, and in some cases you see large, inflamed, bluish hæmorrhoids constricted by a broad band of everted sphincter muscle and mucous membrane, and this may take place to such an extent as to occasion more or less sphacelus. I have very rarely seen this occur to a degree sufficient to effect a cure of the malady, although it may afford, temporarily, great relief.

In the earlier stages of the complaint, when the piles come down at stool, they nearly always bleed, but they

return within the sphincter spontaneously after the bowel is emptied, or upon the patient resuming the erect posture, or, at all events, upon lying down and voluntarily retracting them; and then the bleeding ceases. Later in the progress of the disease the patient is compelled to return them by pressure, and then they keep up; but in still further advanced cases, although returned, they will not remain in place if the least exertion be made.

As regards the structure and appearance of internal hæmorrhoids, three broadly-marked kinds may be observed, viz. the capillary hæmorrhoid, the arterial hæmorrhoid, and the venous hæmorrhoid; at times all perfectly distinct, at others united in the same patient.

The first variety I should describe as small, florid raspberry-looking tumours, having a granular, spongy surface, and bleeding on the slightest touch; these piles are often situated rather high in the bowel. Although they are so insignificant in size, the quantity of blood lost from them may be very considerable, and occasion a serious drain upon the patient's constitution; I have seen many persons quite blanched by the losses they sustain.

In structure they consist almost entirely of hypertrophic capillary vessels and spongy connective tissue, and therefore I think a good name for them is the "capillary hæmorrhoid." They resemble arterial nævi very closely indeed in their microscopic structure, except that they are covered externally by a very much thinner membrane, and consequently are readily made to bleed. If these hæmorrhoids exist for a considerable time uninterfered with, or if powerful astringents

are applied to them, they loose their velvety granular appearance, the bleeding ceases or diminishes greatly, and they remain dormant for a longer or shorter period; but in most cases, they eventually recommence growing and assume a smooth shining surface resembling ordinary mucous membrane; at the same time the main vessels feeding the growth increase in diameter, and the areolar tissue becomes thickened and more abundant; an exudation of lymph and fibrinous matter takes place beneath the mucous membrane, obliterating the capillaries and arresting the bleeding from the surface. These changes I believe to be the result of slow processes of inflammation. I am here only describing what I have repeatedly seen, and I think in this way most commonly the second variety or *arterial internal hæmorrhoid* is formed.

They may be thus described:—Tumours varying in size, attaining sometimes very considerable dimensions, glistening on their surface, slippery to the touch, hard and vascular, if scratched they bleed freely, the blood is bright red and issues "per saltem." If you pass your finger into the bowel you will feel entering into the upper part of each hæmorrhoid an artery, pulsating with as much force as the radial, and, in many cases, of a calibre but little less than it. On dissecting one of these tumours you will find it consists of numerous arteries and veins freely anastomosing, tortuous, and sometimes dilated into pouches, and a stroma of cell growth and connective tissue, the latter most abounding. These advanced hæmorrhoids are certainly not as some have described them, merely dilated vessels

with a little cellular tissue, or sacs, or cells with fluid contents which can be emptied by squeezing.

The third variety is the *venous internal hæmorrhoid*, and in this the venous system predominates. The tumours are often very large. I have seen them quite the size of a hen's egg. They are bluish or livid in colour, and they are hardish; the surface may be smooth and shiny or pseudo-cutaneous; they prolapse very readily, and are often constantly down; they do not usually bleed much, but if pricked the blood may be either venous or arterial. This form is commonly found in women who have borne many children, and who have an enlarged or retroverted uterus; they often occur about the change of life. This form of hæmorrhoid may be called "the passive kind." They are also seen in men with enlarged or indurated livers, in whom the portal system is constantly engorged, and the circulation through the abdominal viscera is obstructed. This is the form of hæmorrhoid spirit drinkers get.*

I never hesitate to operate on these cases, but I observe certain precautions before doing so; if the liver is in fault I prescribe careful living, a course of Carlsbad waters, and the "wet pad" over the liver, together with shampooing and the cold douche; also

* Although venous hæmorrhoids usually are found in adults, I have seen them in children. Here is a case. Henry S—, æt. 3, was brought to St Mark's Hospital, October, 1865. He never was a robust child, and looks delicate now. For eighteen months his mother has noticed something come down when he went to stool; latterly he complained of pain, and there had been slight bleeding. On examination nothing abnormal could be seen. Of course I suspected polypus, and ordered an injection to be given; after the bowels had acted I found three well-marked venous hæmorrhoids had come down outside. There was slight ulceration of the mucous membranes between them. Laxatives, cod-liver oil and steel wine, together with the use of astringent ointments, effected a cure.

the chloride of ammonium may be very useful (3 or 4 grains three times in the day). In women any uterine complication should be attended to, and in men after the operation it will not do to allow them to live freely; for some little time the bowels should be kept well acting, and stimulants should be interdicted; if this is not done you may get symptoms of congestion of the head, shown by flushed face and tensive throbbing headache, or an attack of gout may supervene, as I have seen on several occasions. Sometimes hæmorrhage of venous character will take place a week or ten days after the operation from the surface of the unhealed wounds; if this is not excessive it should not be interfered with. No doubt these are the cases that the older writers advised should not be operated upon for fear of apoplexy or other internal disease resulting. My experience is that there is no danger if ordinary common-sense precautions are adopted.

I have frequently been consulted as to the propriety of operating upon hæmorrhoids in pregnant women. I think the operation quite admissable if the patient is losing much blood or is suffering greatly. I recently had a case at St Mark's in a woman, five months pregnant, who was voiding such quantities of blood that she was quite blanched, and it was absolutely necessary to interfere; she had no untoward symptoms after the ligature of five piles, nor was her recovery much retarded. I have operated many times, always in urgent cases, but only once has a miscarriage resulted. I always keep these patients recumbent longer than ordinary cases, as if they get about too soon the wounds do not heal well.

It has often occurred to me to point out the three

varieties of hæmorrhoids I have described, as existing at the same time in the same patient, which, I think, tends to confirm the opinion I entertain that they are only modifications of one initial disorder. I would by no means dogmatically affirm that what I have called the "arterial hæmorrhoid" always follows, or is preceded by, the capillary form of hæmorrhoid, but I am sure it is frequently so; it has happened to me several times to see cases where nitric acid has been applied to capillary piles with the result of arresting the bleeding, and for months or longer relieving the patient, but the second variety of hæmorrhoid has been gradually growing, and eventually you find fully formed tumours.

Here is an illustration.

A gentleman came under my care in the year 1862. He had two very characteristic capillary hæmorrhoids, and lost almost daily a quantity of blood. The case was one peculiarly well suited for the nitric acid treatment which at that time was all the fashion. I applied the acid thoroughly without causing any severe pain. The result was highly satisfactory, the bleeding was at once stopped, and the patient left my care quite happy.

In the year 1864, about eighteen months after I had first seen him, he again consulted me complaining of discomfort in the rectum and of a protrusion on going to stool. He only very occasionally lost blood; on examination after an injection I found three hæmorrhoids fully formed, and I advised an operation by ligature. He, however, objected to that, and wished me to reapply the acid; this I declined to do, knowing that it would not in any degree benefit him. He went

away to consider whether he would have the operation done, but he did not return again for nine or ten months; he then told me that after seeing me he consulted another surgeon, who applied nitric acid four times for him, but that he had gained only very temporary benefit, and that he was now worse than ever and wished for a radical cure. On examining him I found five hæmorrhoids, three large and of the venous character, and two small of the capillary kind, which had formed since I saw him.

Some years ago it was a common thing for patients to come to St Mark's Hospital with advanced hæmorrhoids relating this history: "Their piles had been (as they called it) operated upon a year or so before with acid, and for some time they were better, but that latterly they had become worse that ever, but they rarely bled now, although before the acid was applied, they lost a good deal."

Although the three broad divisions I have described are most usually seen, sometimes it occurs to one to find a large hæmorrhoidal tumour with a granular capillary surface which bleeds very freely; these are piles that for some reason or other have formed and grown very rapidly; they are usually situated high up the bowel, and have not protruded, and have not suffered from repeated attacks of inflammation.

In the velvety or capillary hæmorrhoid the patient's symptoms are principally such as arise from repeated small losses of arterial blood, which I have noticed are much more exhausting than venous hæmorrhages; the latter often relieve, the former always in time depress. These piles are so small that they give no trouble by their size, and they only protrude slightly, if at all,

on going to the closet; moreover, there is no pain unless there be the complication of ulceration. These patients complain of frequent pains in the back and loins, also in the male in the spermatic cord and testicles; they have great lassitude, and not infrequently the sexual powers are interfered with. I have seen many cases in which this was the symptom that induced the person to seek advice. One case particularly is recalled to my mind from the fact that the gentleman had paid a large sum of money to a charlatan who had been treating him for impotence the result of spermatorrhœa. In women menstruation may gradually cease, and a condition of profound anæmia result. This is well illustrated by a case that was sent me by my friend, the late Dr Chapman, of Biarritz.

A young lady, æt. 20, formerly robust and healthy, gradually fell ill; she became languid, fretful, fanciful, and very anæmic. Menstruation ceased almost entirely; only once in three or four months had she a scanty pale discharge. She did not complain of any pain except in the back and legs on attempting to walk. She had taken any quantity of ferruginous medicines, and had been recommended by various medical men to try the baths at Schwalbach and other German watering places, the disorder being supposed to be uterine. Through delicacy she never mentioned that she had lost blood per anum, and she had never been directly asked the question. Fortunately for her Dr Chapman, under whose care she came, put it to her point blank, when she admitted that she bled almost daily when the bowels acted. The mystery was now solved. By the advice of Dr Chapman she came to me, and I found that she had three very vascular capillary hæmorrhoids. I removed them—recovery ensued without a bad symptom, and she soon regained her former health.

I was consulted this year by a physician about his daughter, who had fallen into a very desponding state of mind, and was also weak and anæmic. Menstruation had ceased for some months. Uterine disease had been diagnosed and treated without benefit. Latterly she had said something was the matter with her bowel, and advice was sought. On interrogation it appeared that she lost blood almost daily, and occasionally in large quantities, so that she had fainted in the water-

closet. Nothing protruded, and she had no actual pain, only a burning sensation at the bottom of the back.

On examination I found an extremely vesicular patch of mucous membrane over the internal sphincter, about the size of a shilling. It yielded arterial blood at the slightest touch, and the sphincter muscles were somewhat contracted. Gentle dilatation, and one touch with the Paquelin cautery completely cured her.

It is these daily small losses which are apt to be overlooked, and which female patients accustomed to their monthly flux scarcely think worthy of mention, but which, when added to menstruation, become a serious matter, and speedily induce chlorosis, and an amount of debility which can only be combated by removing the primary cause of the malady. Very tiresome constipation is usually found attendant upon this condition, and this often continues after the patient has recovered her general health. It is only to be overcome by patient attention to diet, exercise, and the administration of such medicines as give tone and gently stimulate the colon, without irritating or purging. I have found galvanism a valuable adjunct to other treatment. You do not generally find more than two or three capillary hæmorrhoids in the same patient—very often only one, and in women this is almost always perineal, and then it is very easily prolapsed. It is this variety of the disease which is benefited by the application of fuming nitric acid—I say benefited, not absolutely cured, for, in my experience, you cannot by any means be certain of effecting the latter. Had the use of the acid been restricted to this form of pile it would not have fallen into such utter disuse as it has; it was the unsurgical attempt to cure large hard hæmorrhoids with it that brought it into discredit. In these small vascular, granular

piles, strong carbolic is a very good application, as also is the per- or subsulphate of iron in the form of an ointment (ʒss to ʒj of unguentum cetacei is the strength I employ) or as a suppository (gr. ij c. gr. v cacao butter). It acts as a most powerful astringent; it is not cauterant; it causes no pain—in fact, in inflamed hæmorrhoids it seems to act as a sedative; it arrests hæmorrhage with absolute certainty. I have with this remedy effected many cures, and materially relieved numbers of cases when an operation has not been desirable, or when the patient was too nervous to submit to one. I am confident now from a large experience that it is a most valuable agent in the treatment of many rectal affections. Rouse and Co., the chemists in Wigmore Street, prepared for me an excellent Liquor Ferri Subsulphatis, and I found it answer admirably as a styptic and astringent in small ulcerations as well as capillary hæmorrhoids.

I may as well remark here that the capillary hæmorrhoid, or the pile with a capillary surface, is the only form likely to be benefited by the application of nitric acid or acid nitrate of mercury. Ten years ago, when this treatment was in vogue, it was frequently used in the most reckless and unscientific manner, quite regardless of how much it really could do. I used to see at the hospital patients with large, fully developed rectal tumours, to which acid had been applied half a dozen or more times, causing great pain, and with the result of no real curative impression being made upon the disease. I am sorry to say this method is not yet quite obsolete, for I saw with Dr Playfair last year an elderly lady with large piles, who had suffered very severely from several applications of

strong acid, made a short time before by a hospital surgeon of considerable repute.

In the second variety or arterial internal hæmorrhoid the suffering occasioned is more directly associated with the condition of the hæmorrhoid itself as to inflammation or ulceration, and with the state of the sphincter ani muscles. These piles protrude at stool or on making some particular movements, as stooping, &c., and in that way alone they cause much discomfort; they also discharge a gummy acrid mucus, which keeps the part constantly damp, leads to excoriations around the anus, and favours the growth of cutaneous excrescences; moreover, it stains the linen, and this to sensitive, delicate-minded persons is a source of great annoyance. Generally after visiting the water-closet the patient is some time before he can get at all comfortable, often having to lie down, and when he walks about he is almost always aware of the fact that he has a rectum. In health no person feels that he possesses one organ more than another, unless he has to use that organ; often the first intimation of impairment of health is the recognition of the fact that there is a preponderance of sensitiveness or some abnormal sensation in one member of the body. So in rectal diseases the fact is always present to the mind of the sufferer that he has an anus. He scarcely ever feels that his bowel has been properly relieved, and this often leads to frequent visits to the closet, and attempts to procure satisfaction by straining, which ultimately aggravates the malady. The condition of the sphincter ani plays an important part in causing distress; if it be strong and tight, when the piles come down, they get nipped and their return is rendered difficult and

painful; on the other hand, if the sphincter be lax the bowel is constantly coming outside on the slightest exertion, as in coughing, stooping, or even walking; and in these cases when the bowel is down, the patient can rarely hold liquid motions. I frequently meet with patients who say they have to retire to a urinal and push up the protrusion when it descends, or they cannot walk at all. The employment, of course, has much to do with the discomfort of the patient; again, constipation adds greatly to the severity of the symptoms, and so also does habitual relaxation, which, by causing frequent protrusion, induces inflammation and ulceration of the part. These advanced hæmorrhoids are almost always associated with cutaneous hypertrophies around the anus, and these, being irritated by the discharges, become inflamed and very tender. Sometimes I have seen a number of polypoid growths studded over the mucous membrane at the entrance to the anus; in a patient of mine at St Mark's Hospital I counted twelve of these, and recently I have had a private patient on whom I counted twenty-two excrescences.

When called to a patient who has got his piles down and cannot return them, proceed in this way:—Place him flat on his face, with three or four pillows under his pelvis, to raise the hips well up, and allow the intestines to gravitate towards the chest; then smear the piles over with some ointment, pass one finger into the bowel, and with the other hand gently apply pressure, trying to empty the piles of their superfluous quantity of blood; this should be done very gently, as you would apply taxis to a hernia. Should this not succeed, place a bladder of ice over the part, and leave

the patient in the position I have recommended for an hour; then try taxis again, and you will in all probability return them. I have found on several occasions that freezing with the ether spray has been an effective and more rapid method of inducing contraction temporarily, and removing the sensitiveness so that you can apply more direct pressure, but I am bound to say this manœuvre is usually followed by severe burning pain in the rectum. If you have not been able to succeed in getting up the piles try and persuade the patient to have them operated upon without delay; if he will not accede to this, you may order some leeches or apply moderate cold. If there be much strangulation ice should not be kept on very long, or you may produce more sphacelus than you desire. In some instances warm applications with sedatives are more comforting, and relieve pain sooner than cold.

For my own part I never hesitate to operate at once if I can get my patient's consent, as you thus obtain a speedy and radical cure of the disease. I never saw a case of this kind do badly, although some surgeons have said that inflamed hæmorrhoids should not be operated upon. I will make an exception in cases of protruded piles where mortification has set in to any extent; here, although it may be necessary to operate, care must be taken, as the tissues are so broken down that the ligatures will not hold and hæmorrhage may result. In a case I had in the practice of Dr Tanner, of Newington, the parts were so friable that the ligatures cut through the piles, and there was considerable difficulty in arresting the bleeding; I accomplished it by passing a tenaculum deeply below the vessels and

applying a ligature around it. I then cut the tenaculum away from the handle and left it in for three days. This patient did exceedingly well, and was about in less than a fortnight.

In old-standing prolapsed hæmorrhoids there is frequently a difficulty in retaining wind or loose motion; this is partly caused by the relaxed weak state of the sphincter, but more particularly, I believe, by the loss of the acute sensitiveness of the mucous membrane at the lower part of the rectum. This sensibility in the healthy subject gives timely warning to the sphincter ani to contract when necessary.

Very rarely in advanced states of hæmorrhoidal disease is a cure effected without having recourse to an operation, but I have seen such cases; one particularly recurs to my mind, from the fact that I had given a most positive opinion that no permanent benefit could be obtained without operating. This was a gentleman past middle age, who had suffered for years; his piles were full sized, they used to bleed much, and always protruded more or less at stool; they were of the venous passive form, and no doubt were dependent in some degree on the condition of the liver. In this patient great attention to the state of the bowels, always lying down to have an action, and remaining recumbent for an hour or two afterwards; care as to diet, which was of the most unstimulating character, and almost devoid of alcohol; smearing the piles over with the persulphate of iron and other astringent ointments; the occasional use of a full-sized bougie; injection of a quarter of a pint of cold water daily, and the internal administration of Ward's paste, tincture of the muriate of iron, and other remedies, in about

four years effected a cure. At least he told me lately that he had no trouble now with his piles; nothing came down at stool, he had no bleeding, and suffered no other inconvenience. This gentleman was, I must say, able to command every comfort, and was never in any way compelled to exert himself; he had an insuperable objection to anything like an operation, but was most determined, persevering, painstaking, and intelligent in carrying out all the devices I have mentioned. Such conditions are rarely met with in ordinary life; so for all practical purposes it may be said that an operation is indispensable. I have since this case met with others of a similar character, and some have yielded to general treatment and the internal use of the chloride of ammonium.

It is in this the third or venous kind of pile that I think constitutional treatment most likely to be successful, not, perhaps, in always curing the disease, but in materially alleviating it, as the malady often depends upon uterine or liver affections, and a generally overloaded congested condition of the system found in those who habitually eat and drink too much, and who take but little exercise; these causes may, to a great extent, if not altogether, be removed, and if they are so, the hæmorrhoidal disorder will be found to be benefited to an equal degree. A prolonged course of the Friedrichshall and Carlsbad waters will be found useful. I have also seen benefit derived from the oil of sandal wood taken in conjunction with such remedies as relieve congestion of the portal system, and depurate the blood generally.

Professor Richet, of Paris, at the Hôtel Dieu, delivered a lecture on what he termed "white piles"

(*hémorrhoïdes blanches*), as they did not discharge blood like ordinary internal hæmorrhoids, but a sero-mucous fluid. The Professor stated that the white piles are merely ordinary piles in a more advanced stage, and consisted principally of hypertrophy of the papillary bodies of the mucous membrane. The incessant discharge acted as perniciously as frequent bleeding, being nothing more or less than transformed blood; and he advised them to be operated on in the usual way, preferring himself the cautery to any other method; he objected to Chassaignac's "écraseur," or Maisonneuve's wire "constricteur," which, he says, often produce permanent contraction of the anus. For my part, while agreeing with M. Richet, I do not see any sufficient reason for introducing a new name in addition to those generally in use.

In women suffering from a retroverted or anteverted uterus an operation upon piles is very undesirable, and will most certainly end in disappointment unless the uterine complication be attended to at the same time, or, what is better, prior to the operation. My experience warrants me in saying that if you can restore the uterus to its normal position and size, you will find that the rectal affection will soon become a comparatively small matter. In my earlier operations upon women I did not take into sufficient consideration the condition of the uterus, and I could relate many cases in which I was most grievously annoyed to find that the patient did not recover, as I anticipated she would have done. I have found that if the wounds heal there is but little relief afforded, the same bearing down and distressing sensation exists in the bowel as it did before the removal of the piles. More

commonly the wounds do not heal, and very painful unhealthy ulceration follows; this will never get well as long as the abnormal condition of the uterus remains. I will briefly relate a case or two bearing upon this point.

Mary C—, æt. 34, came under my care, in the early part of the year 1862, at the Farringdon Dispensary. She was a single woman, and had suffered for years from hæmorrhoids; they came down at stool; she lost blood and had much bearing down; she was likewise troubled with her water, passed it very frequently and with difficulty, never feeling that she had quite emptied her bladder. The urine was not turbid, and she did not have actual pain—only discomfort. On examination four full-sized hæmorrhoids were found (their character is not stated in my notebook). Aided by my friends Dr Frodsham and Mr Charles Smith, I applied ligatures to them. The operation was followed by retention of urine, and a catheter had to be passed for the first few days; while she was in bed she seemed better, but after a fortnight when she began to get about, she complained of bearing down in the "back passage," and much pain in defæcation. The bowels were very difficult to get to act. These symptoms I expected would pass away when the wounds were quite healed; but, to my dismay, they did not, and two months after the operation I found there was ulceration of the bowel, and she suffered a great deal. I had for some time suspected that the uterus was not right, so I obtained the opinion of Dr Edward Cock, who was at that time the obstetric physician to the Dispensary, and that gentleman pronounced that she had a fibroid tumour of the uterus (this diagnosis was afterwards confirmed by many other authorities). I need not prolong this history—suffice it to say that she never got well: for years I saw her occasionally; she always had rectal symptoms and underwent a great deal of pain. I do not think the ulceration of the bowel ever entirely healed. I took her into St Mark's Hospital in the year 1867, and by rest and treatment she got better, but not well; for the last three years I have lost sight of her. I believe she gained admittance into one of the hospitals for incurables. I am quite certain of one thing, *i.e.*, she was not benefited, and I am strongly of opinion that she was damaged by the operation I performed upon her.

Emma N— was admitted into the Great Northern Hospital under my care in February of 1864; she was a single woman, æt. 24. She complained of great pain in passing her motions; the pain lasted for hours, and then gradually subsided, and she was easy until she had again to go to stool. Of course my diagnosis was fissure, and I was correct, but

addition I found three large internal arterial hæmorrhoids. I incised the fissure and tied the piles. She went on very well and left the hospital, feeling quite comfortable, and being free from pain on the bowels acting. In about a month she came again to me, saying that her old symptoms had returned, but, on examination, I could find no fissure, or ulceration, or anything the matter with the rectum; she complained of pain and straining when the bowels acted, and a sensation of not being relieved afterwards. The only thing I could find to account for this was a tendency to intussusception of the upper part of the rectum on her bearing down. I treated her with laxatives, sedative injections, suppositories, and other remedies; but with very little benefit; what seemed to do her most good was rest in bed. Suspecting uterine disease, I recommended her to see an obstetric physician, and she came under the care of my friend Dr Palfrey, and that gentleman found that she had retroflexion of the uterus. She was under his charge for a very long period, and underwent some operative treatment at the London Hospital. After this I took her into St Mark's Hospital, but could never find any organic mischief in the rectum, although she still suffered pain and much discomfort in connection with defæcation. I have recently heard that this patient is now better, but for years she was incapable of doing any work. It was said that masturbation was the primary cause of this woman's suffering; it might be so, but I cannot say that I am prepared to endorse that opinion.

Mrs R—, a patient of my friend Mr Charles Waller, of Sydenham, was operated upon by me for severe hæmorrhoids, Mr Waller assisting me. I knew this lady was suffering at the same time from vaginismus, but I thought that the removal of the rectal disease might be generally beneficial to her health, which was very much deteriorated by the losses of blood she sustained. After the operation she was much better for a few weeks, but the wounds in the bowel healed with great difficulty, and after some time she had a good deal of pain on defæcation, and the bowels were very confined; I could not discover any disease of the rectum, although her symptoms were directly referable to that organ. A year or so later she was operated upon by Dr Barnes for the cure of the vaginismus; but I know that she has never recovered good health, and is an invalid to this day, her sufferings being most prominently rectal.

Tri-partite disease of the rectum, uterus, and bladder or urethra, is very common. I attended a lady of middle age, who had hæmorrhoids and fissure; after the operation she still suffered pains in the rectum,

and I suspected disease of the womb, as she had difficult and painful menstruation. She was seen by a distinguished gynæcologist, who found a contracted os uteri, and she underwent an operation which for a time did good; then she suffered from spasm of the urethra and great pain on micturition. Dilatation of the urethra was performed also with temporary benefit, but her rectum, although perfectly sound, was every now and again very painful, and always so at her menstrual period. I know this lady consulted most of the eminent men in London, and had all kinds of treatment, and still she comes to me from time to time, and it is quite five years since I first saw her, with all her old symptoms, not merely subjective, but objective, as inflammation of the rectum, uterus, bladder, and urethra—one or all at the same time.

I have had a lady under my care, sent me by my friend Dr Leeson, who suffered from sub-involution of the uterus, with ulceration of the os and painful profuse menstruation; she had also hæmorrhoids, which prolapsed and bled, and a circular ulcer in the bowel. It was agreed that an operation should be performed, and I removed her hæmorrhoids with the clamp and cautery, and incised the ulcer. The healing was most difficult and tedious; ulceration took place, and such contraction as to cause stricture, which after some months I was compelled to divide. She also acquired inflammation of the bladder, after having a catheter passed only a few times, so that great pain on micturition was added to her other troubles; only after the most constant attention, and compelling her to occupy the recumbent position for more than four months, did she recover. Parallel cases are so common with me, that I could relate many more, but I only want to show how complicated and difficult to treat these cases are.

In cases of hæmorrhoids in persons with congested livers, or who habitually eat and drink too much, I always precede the operation by administering every night (for three or four nights) a five-grain blue pill,

and in the morning a modification of the old-fashioned black draught. This may seem to be rather rough treatment, but I see the most beneficial results accrue from it; and I am confident that patients thus served do better than many others; again and again I have been perfectly astonished at the rapidity with which they recover.

CHAPTER IX

OPERATIONS UPON INTERNAL HÆMORRHOIDS

When you have determined there is no constitutional impediment, and that an operation is positively necessary to effect the cure of your patient, you will then have to decide what proceeding will be best suited to the case you have in hand. From this you will conclude, I am of opinion, that no particular method of operating can wisely be always employed to the exclusion of all other modes.

There are several distinct operations and modifications of them from which to choose, and most of them have been advocated by surgeons of repute, well skilled in their art, and worthy of consideration. I shall first name the operations and then proceed to describe them, and I trust fairly to express my opinion as to their various merits or demerits.

1. Excision with knife or scissors.

2. The écraseur of Chassaignac or the wire of Maisonneuve.

3. The application of various acids and caustic pastes.

4. The injection of carbolic acid or other fluids into the body of the pile.

5. Cauterization, "ponctuée" of Demarquay, Mr Reeves, and others.

6. Cauterization, "linear" of Woillemier.

7. Removal by the galvanic cautery wire.

8. Removal by the clamp and scissors, applying the actual cautery to arrest hæmorrhage.

9. Dilatation of the sphincter muscles.

10. Ligature.

I. *Excision by the knife or scissors*

In days gone by excision was performed by Dupuytren, Sir Astley Cooper, and others, but they all acknowledged the danger of the operation, and many fatal cases are recorded as having occurred even in the hands of masters in surgery. With our newly acquired modes of operating, and especially of arresting hæmorrhage, we can now in many cases perform the operation of excision without incurring any extraordinary danger, and therefore it need not be summarily dismissed from our consideration.

For my own part, I think it is one of our best operations, and I have during this year in eighteen cases cut off internal piles, and the results have been remarkably good. Little pain has been experienced, and the recovery has been so rapid that nearly all my patients have been absolutely well by the sixth day, by this I mean that the wounds were all soundly healed. I consider this the only test of perfect recovery—to say that they were convalescent and could go about would

not express the whole truth—the word convalescence is very elastic, and is often erroneously used as synonymous with cured. I do not recommend excision in cases where the hæmorrhoids are very large or unusually numerous. In my cases there existed, one, two or at most four piles. In performing excision I first gently but *fully* dilate the sphincter muscles, and employ a retractor to keep the anus well open; I then seize the pile deeply by its base, cut it off above the level of the vulsellum, and do not let it go until all bleeding is arrested by torsion of the arteries; rarely more than two vessels spout and require twisting. I wait for a little while to see that all bleeding has ceased, and then I treat each other pile in a similar manner. After all the arteries have ceased to bleed, I place a piece of cotton wadding, previously saturated in a solution of tannin and water (strength, one ounce of tannin to one ounce of water), within the anus as high as my scissors have cut. In no case did any recurrent hæmorrhage take place. This operation must be done slowly and carefully, and therefore occupies more than the usual time, which, however, is of no moment as the patient is insensible. As far as my present experience can lead me to judge, I am of opinon that numerous cases are amenable to this treatment. The single perineal hæmorrhoid, so frequently found in women, is peculiarly well suited to this operation. I have used several times the ingenious toothed scissors of Dr Richardson, but I do not like them. The theory is excellent but the practice is bad, the hæmorrhage is not always controlled, and often very nasty, irritable wounds, result.

II. *The chain or wire écraseur*

I really do not know any sufficient reason for the continued practice of this mode of operating on piles. I have called it "barbarous and unsurgical," and I cannot see why I should modify that expression. The chain is undoubtedly worse than the wire, but neither are definite in their action, they remove either too much or too little. Thus I have seen several cases of most intractable stricture follow, and on the other hand cases in which nothing curative had resulted, a timid operator taking away only two or three portions of mucous membrane, and really leaving the hæmorrhoids almost untouched. A Brazilian gentleman was sent to me eight weeks after he had been operated on by a distinguished French surgeon with the écraseur, the hæmorrhoids still existed in abundance, and he was losing much blood. I have seen at least half a dozen of such failures. A metropolitan surgeon of eminence told me he had obtained success with the écraseur, but upon interrogation his idea of success did not come up to my notion of the word. Another objection to the écraseur in hæmorrhoids is the intense and prolonged pain which follows, especially when skin is removed. An Italian surgeon related to me a case where death ensued in a woman from shock and pain in less than twenty-four hours, and I can quite credit his statement. I once saw a woman die in St Thomas's Hospital from the same cause after an operation by ligature applied in the old way, I mean by transfixion and ligature of skin as well as hæmorrhoids. The patient was operated upon by Mr Simon on

the 19th of November, 1859, she was a pale, feeble woman, æt. 53; she died on the morning of the next day; she had suffered intensely. I have no note of what was done to relieve the pain. The post-mortem examination made by Mr Sidney Jones on the 21st was as follows:

"Some piles had been the subject of operation by ligature—the ligatures were present. Nothing abnormal was detected in the veins leading from the ligatured piles. The thoracic viscera were healthy. There was some congestion of the posterior part of the lungs. The liver was rather large and pale. The kidneys were healthy. The peritoneum and intestines were quite healthy."

I do not think the death in this case could be attributed to anything but shock and exhaustion from excessive pain.

III. *The application of various acids and caustic pastes*

The treatment of hæmorrhoids by acids or caustics may scarcely seem to justify the term "operation," but as some manual dexterity is necessary in order to apply them properly, I must beg permission of my readers to write of them here. For many years acids have been used in attempts either to destroy, or cause such consolidation in piles as should lead to their cure. The acids chiefly used have been the fuming nitric acid, the acid nitrate of mercury, chromic, and more recently carbolic acid. It was thought at one time that even large piles could be destroyed by acids, and many cures were published, but I very much doubt if any lasting cures of developed hæmorrhoids were

effected by such means. I have seen numbers of cases in which the attempt was made, but the patients were either not relieved at all, or only very temporarily benefited. Hæmorrhage was often arrested, but it generally recurred, and on many occasions after the free use of acid on the separation of the sloughs violent bleeding took place, and patients were brought nearly to death's door. If the application of acids had been restricted to cases of small granular piles, or patches of villous bleeding mucous membrane, I should not object to their use, as often patients will submit to such treatment when they will not to anything more formidable, and relief and even cure in this stage of the disease may be obtained; but no satisfaction can result from touching large hæmorrhoids with any acid known to me. Two years ago I had an opportunity of testing all the acids I have mentioned in the case of an old Indian General, who had three prolapsed arterial hæmorrhoids of vascular surface and considerable size. His shattered health, with partial paralysis, forbade any serious operation, and he was unwilling that more than external applications should be made. For three months I persevered; I managed not to cause him much pain, though the diseased mucous surfaces were painted freely and frequently. The method in which I applied the acids I will mention, as I think it a good way to avoid pain. The piles being fully prolapsed (he could strain them down easily) I surrounded one with a piece of wool soaked in a saturated solution of bicarbonate of soda, the surface of the pile was then dried, and the acid applied with a small wooden brush several times, waiting between the applications for the part to dry.

Each pile being thus treated the parts were washed, well oiled, and returned within the sphincters. On one or two occasions troublesome bleeding followed the separation of a slough, but usually it came away in small portions; by this mode of using the acids I never caused any burning of skin or healthy structure. At times the patient thought himself better, but the final result was a failure.

I came to the conclusion that the chromic and carbolic acids were better agents than nitric acid and acid nitrate of mercury. Still more recently I had a good trial with acids on a gentleman who had one perineal hæmorrhoid, which was always prolapsed and consequently bled, and gave him much annoyance but no great pain. I really expected to obtain a fair result here but all failed. My friend Dr B. W. Richardson had recommended me to try the application of his "Iodized Colloid" as a remedy in internal hæmorrhoids, he told me the resulting pain would be considerable, but that a dozen touches would generally suffice for the cure. I made trial of this in the above case, but the pain experienced was so great that my patient became restive and refused to persevere; while in that humour I suddenly proposed to excise the offending pile, he consented, I at once removed it, twisted the vessels, and he was quite well in a few days.

Caustic pastes.—Personally I have no experience of this practice as applied to hæmorrhoids, but in France and Germany it has been freely recommended; to my mind the uncertainty of the result, added to the great pain inflicted by caustics, is sufficient to deter me from using them.

Caustic pastes are mostly formed by adding an inert material to some chlorides, zinc, calcium, &c. Ricord's paste (sulphuric acid and carbon) is a favourite with some surgeons.

Dr Laroyenne, of Paris, in the 'Gazette Hebdomadaire de Médecine,' No. 34, 1872, passes in review the usual methods of treating bleeding internal piles, and considers them all to have many objectionable features and dangers, and recommends, as Bonnet and Valette have done, the use of Vienna paste and chloride of zinc; but instead of applying the caustic all over the pile, he uses it in the following manner. When the part is prolapsed, a line is drawn along the centre of each hæmorrhoid with Vienna paste, the lines converging towards the orifice of the anus. After two or three minutes, the application is followed by placing small fragments of chloride of zinc paste where the Vienna paste has been. Eight or ten caustic lines are sufficient to cure the largest prolapsus. In this manner are produced deep radiating cauterizations without destroying much of the surface of the piles. The application remains for seven or eight hours. The only painful period, says Dr Laroyenne, is during the application of the Vienna paste. He has employed this method fourteen times without the slightest ill effect resulting, all the patients were cured, and he believes the treatment safer from hæmorrhage, pyæmia, and other accidents than any other. I am sorry I cannot concur with Dr Laroyenne.

IV. *The injection of carbolic acid or other fluids into the substance of the pile*

I have read in American pamphlets that the injection of carbolic acid into internal piles for the purpose of effecting radical cures is very commonly practised in America, and that "shoals of quacks" perambulate the country, armed with a hypodermic syringe, and a bottle containing a so-called secret remedy; this remedy being carbolic acid diluted in different ways and of differing strength, the favourite formula is equal parts of strong carbolic acid, glycerine and water. This treatment is strongly advocated by Dr Cook, of the Kentucky school of medicine, who obligingly sent me his essay upon the subject. I most sincerely hope he is in error as to the "shoals of quacks" who employ this remedy; but if radical cures *are* effected, and no evil results, the only objection I can see is that the legitimate practitioner loses his fees.

After carefully reading Dr Cook's pamphlet I did not feel quite satisfied that he had made out a good case for the carbolic acid treatment, in fact, he only relates the histories of two persons on whom he had performed injection; he generally uses the formula I have mentioned, and squirts through a large needle ten to twenty drops of the solution into the substance of the pile; he does not inject all the hæmorrhoids at once, but one or two at a time every other day until all are done. Many American surgeons who came to see the practice at St Mark's have repudiated the treatment in round terms, and call it uncertain and dangerous. Dr Matthews, of Louisville, has kindly sent me his pam-

phlet, read before the Kentucky State Medical Society in 1878, and in that paper he endeavours to show that the injection of the acid into a pile is painful, inefficient, and that death is to be feared (*a*) from peritonitis, (*b*) from embolism, (*c*) from pyæmia. In support of his assertion he relates a case under the care of another practitioner where in twelve hours violent inflammation followed, but the piles were not cured, for in twenty days after the injection, one tumour had to be removed by ligature. He also cites another case of peritoneal inflammation, and says embolism and pyæmia have been known to result from injecting nævi with solution of iron, and deaths have occurred from injecting internal hæmorrhoids with carbolic acid. For my own part I am much inclined to agree with the opinions of Dr Matthews. I tried the injection plan on some few cases, but the result was much pain, more inflammation than was desirable, a lengthy treatment, and the result doubtful; certainly not a radical cure.

It appears to me that all attempts to destroy vascular growths by causing a coagulation of blood or inflammation in them while they are not shut off from the general circulation must be fraught with danger. You can have no guarantee that the coagulum may not break down, and minute particles of dead tissue find their way into the vascular or lymphatic systems, and result in embolism or pyæmia, or both. Perchloride and persulphate of iron in solution have been used in the same manner as carbolic acid, but a similar danger awaits them, and this I submit far outweighs the advantages they are said to offer.

V. *Cauterisation "Ponctuée"*

As far as I can ascertain M. Demarquay, in the year 1868, practised and strongly advocated the use of a red-hot cautery as a cure for internal hæmorrhoids, the iron was to be thrust deeply into the pile twice or thrice; he had not much success. In China and some parts of India I have been informed, by my friends in military and civil practice, that the native doctors treat hæmorrhoids according to the plan of M. Demarquay, and possibly have done so for hundreds of years. My friends have not been able to satisfy me as to the results of the treatment, only my friend Dr Beaumont said "he thought that many died."

In 1873 Bottini Enrico, of Novare, published a thesis entitled "La galvanico caustico nella practica Chirurgica." I make the following extract on hæmorrhoids:—"The operator providing himself with a galvanic cautery, heated to a fine red, applies the point of it to the hæmorrhoidal tumour, and introduces it slowly and progressively to a depth varying from ten to fifteen millimètres. When the point of fire has arrived in the interior of the tumour he moves it around, allows it to remain for a few seconds, and then rotates as it is withdrawn; he repeats the treatment in the same manner and with equal precautions to all the piles. If the tumours are extensive he again introduces the cautery parallel to the rectum." A case of pyæmia following this operation is related in full detail by Verneuil. A similar operation was performed in 1873 by E. Lartisen a pupil of Verneuil. Mr Reeves, of the Hospital for Diseases of Women, has brought this

method forward in an article in the 'Lancet,' of Feb., 1877. He calls it "immediate" and "new," the one is just as correct a definition as the other. Wishing to see whether the conical cautery attached to the "Paquelin" instrument was better than the hot iron of Demarquay or the Chinese, I within a fortnight of the appearance of Mr Reeve's paper used it in three cases. One was a patient of Dr Hills, of Abbey Road, St John's Wood, another was a case which I left to the care of Mr Ernest Carr Jackson, only seeing him twice or so myself, and the third was a hospital patient. I am bound to say, although Meyer and Meltzer made my cautery, and I rigidly followed Mr Reeve's directions, these cases were all failures—great pain, retarded recovery, and abscesses occurred in two; in one a cure did not result. I was only pleased nothing worse happened, as the same objection applies to this mode of treatment as I brought against the use of injections of acids into piles, viz. you produce a slough or inflammation, the extent of which you cannot measure or control, in the interior of a vascular tumour not cut off from the general circulation.

VI. *Cauterisation, "linear," of Woillemier*

The operation of Woillemier, I think, is "unique," and I feel I cannot do better than translate from 'L'Union Médicale' (1874) such portions of his lecture as shall make his method quite clear to my reader.

I must express my pleasure at the straightforward manner in which M. Woillemier gives the advantages and disadvantages of his operation. He does not hesi-

tate to say that the patient may be one month in getting well, he states that in very bad cases two operations may be necessary, and further considers the dangers which may arise.

"The patient, whose rectum has been emptied in the morning by means of an injection, ought to be chloroformed; but if he prefer to remain awake, it is of little importance, as the operation only lasts some seconds. He is laid on a edge of the bed, with one leg extended, and the other bent as if he were going to be operated on for fistula. The assistant raises the disengaged buttock, the surgeon paints the anus and the surrounding parts largely with collodion, whilst an assistant, by means of bellows, drives off the fumes of the ether, which are sure to catch fire when a highly heated cauteriser is brought near them. During these preparations, two knife-shaped cauterisers have been placed in a small furnace, full of charcoal or burning wood. The blades of these cauterisers should be two centimètres long and one wide; the tip and edge should be blunt, as in ordinary cauterisers, but the back should be four or five millimètres thick, so as to hold enough heat. The surgeon takes one of these cauterisers when it is white hot, and introduces it about one centimètre into the anus, bearing with the shoulder of the instrument rather more on the cutaneous than on the mucous orifice, and makes four cauterisation lines, before, behind, on the right, and on the left. The operation is terminated when it has lasted five or six seconds. The patient is brought back to consciousness, and simple water-dressings only are applied to the anus. We must premise that, under the influence of the congestion produced by cauterisation,

the hæmorrhoidal tumour will reappear the first day or so, and sometimes larger than usual, but no notice need be taken of it. We can only relieve the pain of the patient, pain which has no relation to the cauterisation, by coating over the hæmorrhoids with a narcotic ointment, and covering them up with a poultice. The tumour soon ceases to be painful, and is at last completely and spontaneously retracted. The time necessary for cure varies only according to the size of the hæmorrhoids, the relaxation of the anus, and the age of the patient. It has never exceeded one month, and has sometimes been much less. In some subjects, even when circumstances have made success doubtful, cure has taken place as in simple cases. The patient ought to be chloroformed, particularly in private practice, where the assistance is less efficient than in an hospital, for though the operation is rapid it is also very painful. The patient may struggle after one or two applications of the cautery, and even refuse to allow others to be made, so that the operation would remain incomplete. The orifice of the anus and the surrounding parts must be painted with collodion. This is a very important precaution. All surgeons have affirmed the difficulty of preventing the effects of radiating heat. To preserve the parts from these effects, cloths steeped in cold water and thin plates of wood have been used; but not only are these in the operator's way, but they are not, as a rule, efficacious. Collodion, on the contrary, even when applied in a thin layer only, forms an artificial epidermis scarcely permeable to heat and sufficiently protecting the skin.

"It is necessary to dissipate the ether-vapour, or it would take fire as soon as the heated cauteriser is

brought near the anus. The accident would not be of much importance, for the burning vapour is easily extinguished by blowing it out; but it is better to avoid it altogether. It is easy to understand the importance of the use of collodion in relation to the pain which succeeds the operation. The patient cannot feel pain in the parts to which the iron has been applied, for the tissues are dead, but he suffers in the surrounding parts which have been attacked by the radiating heat, and the painful nature of superficial burns is well known. The burns, however, are not very serious, and only last about four days, at the time when the inflammation necessary for the falling off of the sloughs develops itself, or during defecation after the sloughs have fallen off. The cauterisers ought to be knife-shaped, or even with round points. To ensure the rapidity of the operation they should be heated to white heat. One operation is frequently enough, but more than two are never necessary, how large soever the hæmorrhoidal tumour may be, for we do not act directly on the latter, but on the anus.

"In some cases the tumour cannot be reduced before operation, or at least entirely so when it still escapes outwardly in consequence of the involuntary contractions of the patient. No notice need be taken of this accident. The cauteriser is slipped between the tumour and the walls of the anus, for it is of little consequence if the hæmorrhoids should be lightly cauterised by the back of the instrument.

"Sometimes the shoulder of the cauteriser implicates the cutaneous circumference of the anus, but that is of no importance; it is even sometimes useful when the anus is considerably relaxed. There is no need to

dread hæmorrhage, for the cauteriser interferes only with the mucous membrane, the submucous cellular tissue at the entrance of the anus, and the skin at the edge of the orifice. At all these points the vessels are small, and when the hæmorrhoidal tumour is touched by the back of the cauteriser, it is in so light a manner that no vessel of any importance can be opened.

"If any accident is to be feared, it would be stricture of the rectum; but the four cicatrices which have been formed at the entrance of the anus, although possessed of great retractile power, are made linear in the direction of the intestine. Between them are intervals occupied by highly elastic tissue, which make stricture impossible. It may be objected that, if the anus remain sufficiently dilatable, the patient may have a relapse. This accident is certainly not impossible, but it is the business of the surgeon to estimate the state in which he finds his patient. If he be going to operate upon an old person having a large and old standing tumour, and whose anus has little resilient power, he should lean a little more heavily on the cauteriser, so as to implicate a greater thickness of tissue than in ordinary cases; by this procedure he will be sure to avoid a relapse."

I will only remark that I have no doubt the operation is efficient. The recovery is rather long and the pain is considerable, but by experiment I find the application of "collodion" does away in great degree with the pain usually inflicted by radiation of heat.

VII. *Operation by the galvanic cautery*

The galvanic cautery may be employed for the removal of hæmorrhoids, the division of fistula, and other surgical operations about the rectum. I have myself some personal experience in its use. I fail, however, to see any good reason for the adoption of this method of operating in ordinary cases. If a cautery be required, I cannot tell why the galvanically heated wire should be preferable to an iron heated in the fire, or to any form of platinum cautery rendered hot by the rapid combustion of benzoline, as in the "Paquelin" instrument. In my humble opinion in almost all cases the "Paquelin cautery" is superior to any other. I will put in this reservation, that the person working the cautery must thoroughly understand the mechanism of the instrument, and have had some practice in its use. All the failures I have seen with it have been consequent upon the small knowledge of those who were working it. An expert can at an instant give any heat you may require from white to black.

The galvanic cautery requires a cumbersome battery; it is exceedingly apt to fail; you may at the supreme moment get either too much or too little heat, and this will occur even in the hands of a specially trained assistant. There is still another objection, which applies chiefly to simple cases, as, for example, the removal of piles, there seems an amount of fuss and pseudo-scientific show about it to which my mind is exceedingly repugnant. The only battery at all reliable is Daniel's.

VIII. *The removal of hæmorrhoids by the clamp and scissors, the bleeding being arrested by the application of the heated iron*

This operation is generally known as the "clamp and cautery" operation, and is now most frequently associated with the name of Mr Henry Smith, although, in truth, it was devised in its entirety by Mr Cusack, of Dublin, and was first introduced into London by Mr Henry Lee, of St George's Hospital. In its performance each pile is seized by a volsellum and drawn well down, the clamp is then applied so as to embrace its base, the portion above the clamp is cut off with a pair of scissors curved on the flat, and a cautery iron heated to a dull red heat is freely applied to the stump until all the vessels are well seared.

In my opinion, this operation has little to recommend it. As regards danger to life—after all the issue of the greatest moment—as far as my most careful researches have led me to a conclusion, it is quite six times as fatal as the ligature properly and dexterously applied.

Mr Henry Smith, in the 'Lancet' of April 20th, 1878, has published his last series of cases, numbering 530 in all; he acknowledges four deaths. In 195 cases operated on by me by clamp and cautery I have had two deaths. Over this sad result I am exceedingly sorrowful, seeing that in just 1100 cases of ligature, combined with incision, I have not had a single death from any cause whatsoever. With this experience I cannot help saying that were I again to employ the clamp and cautery I should consider myself guilty of a gross neglect of the welfare and safety of my patients.

IX. *Dilatation of the sphincter muscles*

The treatment of hæmorrhoids by the complete dilation of the external and internal sphincter muscles has been strongly advocated in France by many eminent surgeons, and notably by Verneuil, Fontan, Panas, Gosselin, Monod, and others.

The benefits resulting from dilation seem to have been accidentally discovered, and I cannot admit that the rectal physiology of Verneuil gave by any means the clue to this treatment. For my justification for this statement I must refer my reader to p. 86 of this work.

I have now no doubt in certain cases of hæmorrhoids dilation, full but gentle, of both sphincter muscles will give wonderful relief, and I have myself in many cases seen great good accrue; but, on the other hand, there are cases in which no good has resulted, and reflection would lead one to conceive with great certainty that such would be the case.

When, for example, in old standing disease the hæmorrhoids easily prolapse at stool, and on walking, stooping, coughing, and other common physical acts, the sphincter muscles become so dilated that more dilation could not possibly mend matters. For here no strangulation or pressure takes place; the piles themselves are large, but they do not swell and become livid when outside the body, and the discomfort and suffering results not from any "pinching," but from the exposure of mucous membrane to accidental friction or injury, plus mucus and muco-sanguineous discharge, and I have often seen such cases where no remnant

even of the sphincter muscles could be detected; and when the hæmorrhoids were returned a large patulous opening could be seen, into which the hand might easily be passed. To cure these patients not only is it necessary to remove the growths, but often also to obtain contraction of the anal orifice by applying freely the hot iron, so as to produce several linear cauterizations after Woillemier's plan.

The cases best suited to dilation are the very antipodes to those I have described. Given piles which, when they protrude, are tightly embraced by the sphincter muscles, which piles immediately become swollen and livid, and perhaps bleed freely, the patient being able only with much trouble and considerable pain to return them. Here it is manifest that dilation of the sphincters may afford speedy relief and even result in a cure. In such a case the muscles around the lower inch or so of the rectum are, from irritation, in a state of almost constant spasmodic contraction, consequently all the vessels are engorged and the return of blood from the rectum is greatly impeded, and the hæmorrhoids grow with much rapidity. Suppose in such a case you render your patient insensible with ether, and insert two fingers into the rectum, and dilate gradually in the antero-posterior direction, then manipulate in the opposite direction, using such force as gradually to overcome the spasm, continue gently to pulp both sphincter muscles all round, taking care that you act high enough up the rectum to include the whole of the sphincter, you can do away with every morsel of contraction and no spasm can occur; in fact, for the time, like in any overstretched muscle, paralysis has been induced. With practice and great gentleness

this may be accomplished without tearing the mucous membrane, or even drawing blood, but a little extravasation is usually noticed around the anus for a few days. After this, place an opium suppository in the rectum, and keep your patient recumbent in bed. What takes place? First, all the blood returns freely to the liver, no stasis remains, the piles diminish in size, the pain passes away, and in four or five days your patient may rise and go about his business wonderfully relieved. If at the end of two or three days you examine the sphincters you will find them both capable of acting, but gently; there is no spasm. When you insert your finger the muscle closes upon your finger, but it does not grasp it; the spasm, indeed, which before the operation rendered it difficult for you to get your finger into the bowel, has gone, and with care and judicious treatment may never return, in which case the patient would, at all events for a considerable time, be cured of his hæmorrhoids.

When, in addition to piles, a fissure or ulcer exists more immediate benefit is obtained, as great pain will, on going to stool, no longer be felt, and in the majority of cases the sore place will heal. In the early conditions of hæmorrhoids, when there is little or no prolapsus, only occasional loss of blood and spasm of the sphincter exists, which is often the case; the dilatation will, as I have personally found, really cure the patient, or at all events postpone for an indefinite time the growth of the hæmorrhoids.

In properly selected cases I am of opinion that dilatation is really an admirable treatment, devoid, as it is, of danger, causing only trifling pain, and not keeping the patient in bed more than a very few days.

The treatment of internal hæmorrhoids by ligature

In expressing, as I most unreservedly do, the opinion that the ligature is by far the safest, easiest, and best operation for the great majority of cases of hæmorrhoids, I must be understood to mean the operation usually performed at St Mark's Hospital, viz. ligature combined with incision. The operation was devised by the late Mr Salmon, and has been practised at that institution for more than forty years. I must premise that in all operations about the rectum, but more particularly in case of piles, it is essential that the alimentary canal should be thoroughly cleared of its contents. For two or three days prior to the operation some mild but efficient purgative should be taken, and it is well, if possible, to have an enema of warm water administered a few hours before operating.

In cases of piles I prefer the patient to lie on the right side on a hard couch, with the back towards the light, and the knees drawn well up to the abdomen. The assistant should stand with his back towards the patient's head and raise the upper buttock with the right hand, the right elbow being at the same time hooked over the pelvis so that he can control movement on the part of the patient and keep him in a good position. The patient being thus prepared and fully under the influence of the anæsthetic, I now always gently, but completely, dilate the sphincter muscles; this completed, the rectum for three inches is within your easy reach, and no contraction of the sphincters takes place, so that all is clear like a map

before you. The hæmorrhoids one by one are to be taken by the surgeon with a vulsellum or pronged hook-fork, and drawn down; he then with a pair of sharp, strong, spring scissors separates the pile from its connection with the muscular and submucous tissues upon which it rests; the cut is to be made in the sulcus or white mark which is seen where the skin meets the mucous membrane, and this incision is to be carried up the bowel, and parallel to it, to such a distance that the pile is left, connected by an isthmus of vessels and mucous membrane *only*.

There is no danger in making this incision, because all the larger vessels come from above, running parallel with the bowel, *just beneath* the *mucous membrane*, and thus enter the *upper part* of the pile. A well-waxed, strong, thin, plaited silk ligature is now to be placed at the bottom of the deep groove you have made, and the assistant then drawing out the pile with some decision, the ligature is tied high up at the neck of the tumour as *tightly* as possible. Be very careful to tie the ligature, and equally careful to tie the second knot, so that no slipping or giving way can take place. I always myself tie a third knot; the secret of the well-being of your patient depends greatly upon this tying, and it is by no means easy, as all practical men know, to effect. If this be done, all the vessels must be included. The silk should be so strong that you cannot break it by fair pulling. If the pile be very large a small portion may now be cut off, taking care to leave sufficient stump beyond the ligature to guard against its slipping. When all the hæmorrhoids are thus tied, they should be returned within the sphincter; after this is done, any super-

abundant skin which remains apparent may be cut off; but this should not be too freely excised for fear of contraction on its healing. An injection of Liq. Opii sedativus may be administered, or a suppository of half a grain of morphia made with gelatine and glycerine. I always place a pad of wool over the anus, and a tight T-bandage, as it relieves pain most materially and prevents any tendency to straining.

It is advisable to commence operating upon those piles that are situated inferiorly, as the patient lies, in order that the others may not be obscured by blood; but when the hæmorrhoids are numerous, and there is a small perineal or dorsal pile, as there frequently is, it is better to tie the small ones first, as there is danger of their being overlooked, and if they are left they are likely to grow and a return of the piles may be confidently anticipated in a few months. I have seen many cases in which this has occurred.

When the patient takes an anæsthetic it sometimes happens that the protruded piles slip up into the bowel again. I have seen inexperienced operators much worried by this, but you need give yourself no anxiety about it; when the patient is fully off carefully dilate the sphincters as I have before recommended. The advantages are, the whole rectum is quite at your disposal, and even every abrasion can be seen, and, secondly, the pain after the operation, by this dilatation, is almost done away with.

Spasm of the sphincter muscle is, in a great degree, the cause of pain and its long abiding—my patients now never have pain after about three, or at most four hours. The only suffering that may remain is caused by spasm of the levator ani, which will act from time to time, and

a retraction of the anus into the rectum takes place, attended with momentary darting pain. I was never certain why it was that patients who had suffered long from large protruding piles which they could not keep up, scarcely experienced any pain after ligature; now I know that the sphincter muscles caused most of the pain, and those who had practically no sphincters did not have a tithe of the pain the person with a strong sphincter had.

After the operation the bowels should be confined at least for three or four days. I find a solid one-grain opium pill given half an hour after the operation, and repeated every two hours twice, the best to begin with; the pill arrests or prevents vomiting; later on, if required, a draught. The formula I often use is the following:—Pulvis Cretæ Aromat. ℈j; Tinct. Opii, or Liq. Opii sedativus ♏xv; Spt. Æther. nit. ʒj; Mist. Camphoræ, ad ℥iss. To be taken night and morning, or three times in the day for two days. In very bad cases and in delicate persons I occasionally keep the bowels quiet for a much longer period than four days. I have done so for a week or ten days, and I think, in some instances, with very manifest advantage. The diet at first should be light: soup, beef tea, a little boiled fish, milk gruel, tea and toast will be quite sufficient; no alcohol at all should be taken; perfect rest in the recumbent position enjoined. On the third or fourth night, according to the state of the patient, a mild aperient may be administered, and followed by a draught or a carefully administered enema of warm gruel in the morning, and after it has acted a more liberal diet may be allowed, but I always advise abstinence from wine, beer, or spirits, unless there be

some special condition indicating the necessity for their use.

It is well to tell your patient that some temporary, and possibly rather acute, pain may be experienced on the first action of the bowels, and also that a slight discharge of blood *may* take place (it by no means always occurs); if you neglect this, needless alarm is often created, the patient imagining if he sees any blood or has much pain that all his old trouble has returned.

I think it advisable, though not absolutely necessary, that the patient should keep lying down until the ligatures separate, which almost invariably takes place about the sixth or seventh day, occasionally a day sooner, very rarely a day later. If the ligatures are tied tightly and the incision has been free, this course of events is but very seldom departed from. I have been in the habit for a long time of giving daily a gentle pull at the ligatures, commencing the day after the bowels are first relieved; by this plan the ligatures always separate on the fifth or sixth day. *Active exertion*, even after the separation of the ligatures, is to be deprecated until the sores left in the rectum are healed; a fortnight or a little longer is generally about the time required to accomplish this. It is quite unnecessary that the patient should be kept in bed all this time, or even to his chamber—he may move about in moderation; but I am certain that a too speedy resumption of the erect position is likely to retard the cicatrization of the wounds. The patient is convalescent, but not quite well.

I have had patients who have gone about their business with ligatures on their hæmorrhoids, and have sustained no injury; here is a case of that kind. A

gentleman on the Stock Exchange was operated on by me some years ago; it was rather more than an average case; five ligatures were applied. On the day following the operation some sudden turn of the markets rendered it absolutely necessary for him to go to town. When I called upon him, to my surprise I found that he had left home; and for three days consecutively he went to his office and remained there for five hours transacting his business, as he afterwards assured me, with very much less inconvenience than he had frequently experienced before the operation, when the piles came down. He was, in the end, none the worse for his temerity, but it is an example by no means to be commended or followed. On another occasion a naval officer found himself compelled to go on board his ship on the third day after operation, journeying to Portsmouth for the purpose. This gentleman did not suffer any serious inconvenience. Mr Quain in his work relates a parallel case. It is no uncommon thing for me to have patients who are able to resume their ordinary occupation on the eighth or ninth day. In a case sent me by my friend Mr Williams, of Brentford, who also assisted me at the operation, the hæmorrhoids were very large, and four ligatures were applied, but there was *no superabundant skin* requiring removal. This gentleman was really *quite capable* on the eighth day of walking a distance, and was rather surprised that I requested him to abstain from much exercise; he had no pain or any symptom to indicate that he had not perfectly recovered, but I am sure it would have been very unwise of me to have allowed him to do as he wished. The wounds inside the rectum, I knew, could not be

soundly healed, and the delay likely to be occasioned by too much exertion or standing about might be serious. Under these circumstances the sores possibly would not heal, and painful and troublesome ulceration, very difficult of cure, be the result. For years I have digitally examined all my patients upon the thirteenth or fourteenth day after the operation, and in the great majority I have not found the rectum perfectly sound; constantly some unhealed sore remains, and in my opinion, such a patient cannot be said to be well and allowed to go about his ordinary avocations, without incurring considerable danger. The veins of the rectum are destitute of valves and only badly supported by areolar tissue; these sores, therefore, much resemble in their conditions varicose ulcers of the legs; and we well know in such cases rest in the horizontal position is absolutely necessary to ensure a speedy and certain cicatrization.

Pain after the operation varies according to the constitution and nervous sensitiveness of the patient, and also as to the condition of the parts *before* the operation; but, as I have said, by performing gentle and full dilatation, pain is almost done away with. Lately I had three cases of hæmorrhoids consecutively with my friend Mr Aikin, and really these patients scarcely complained, though they were sensitive persons who, I am sure, would have had great suffering under any other method of operating. The rapidity of the cure in these three cases was very remarkable; one gentleman, more than sixty years of age, and whose skin, from great losses of blood, had become quite the colour of old wax, was well, wounds all healed in a fortnight. Still more recently a gentleman, aged sixty-four, who

was seen by me with Mr Leggatt, positively never lost an hour's sleep, and averred he had no pain, and in twelve days was fit for anything; was not merely convalescent, but all the wounds healed. If pain should be acute at first, push your opium or hypodermic injection (Morph. gr. $\frac{1}{4}$, Atropine gr. $\frac{1}{60}$ is my favourite formula). A sponge wrung out of very hot water applied to the sacrum nearly always relieves, however sharp the pain may be at first (which I will observe is always exaggerated by the want of moral control, brought about by the inhalation of ether), in two or three hours it will have subsided, and you may comfort your patient by the assurance that soon the worst of it will be known, and the pain will most surely, if gradually, become less. After the ligatures come away I always direct my patients to douche the anus well night and morning with cold water; this is very comforting, and materially hastens the convalescence.

Every now and then you may have retention of urine follow the operation; in most cases a warm hip-bath will enable the patient to pass water in the morning; if not, of course a catheter must be introduced. Straining to micturate should be avoided under any circumstances. This retention is by no means very uncommon in women, but I have found it occur much oftener in men. It may be accounted for by the fact that the male urethra is so much more liable to stricture than the female, and so very slight irritation will set up spasm of the strictured part sufficient to induce retention. After a few days the power to pass water will return; but I have seen retention for ten days or a fortnight.

Sometimes consequent upon a severe operation upon

internal hæmorrhoids contraction may take place in the bowel on the healing of the wounds. This contraction is not usually at the anus, nor is it skin, but mucous membrane only; time alone will generally remove it, but as it may occasion straining and distress to the patient, I advise the passing of a bougie for a few nights, or what answers as well, and is less alarming, I direct the introduction of the fore-finger, well anointed, into the bowel night and morning; but at times when wounds have been long healing, also if a great deal of the bowel is removed longitudinally, a tight hour-glass contraction will take place—usually the contracted part is ulcerated—the patient suffers much pain, has obstinate constipation, and cannot sit up without a sensation of bearing down and great discomfort. This is the form of stricture and ulceration which I have so frequently found following operations when heated irons are applied. I very often see this in the practice of others, and have had it occur in my own cases. To get them well requires great attention, gentleness, and perseverance; usually constitutional treatment is required as well as mechanical; the patients are nearly always weak and unhealthy, often strumous, and the malady is more common in women than in men, and the uterus therefore usually requires attention. Sub-involution, retro-version and ante-version with flexion, and chronic endo-metritis, are the diseases commonly complicating the rectal mischief, and no surgeon can hope to cure those patients who does not take the state of the uterus into consideration.

I do not think in the whole range of surgery there is any procedure worthy of the name "operation" which

can show a greater amount of success or smaller death-rate than the ligature of internal hæmorrhoids.

In the year 1865 I published in the 'Medical Times and Gazette' some statistics of the practice at St Mark's Hospital, which showed that, in 1763 operations upon hæmorrhoids, there had been five cases of tetanus, four occurring in the spring of the year 1858, two in March, and two in April. Since the year 1858, 2000 and a few operations have been performed, and there has not been any case of tetanus; and in these 3763 cases there has been but one case of doubtful pyæmia. This death occurred in Mr Gowlland's practice. An old Hebrew was operated on for bad piles with the ligature. A few days after diarrhœa set in and he died exhausted. Pyæmia was suspected, but no necropsy was made, as the Jews object, so there is still an element of uncertainty in the case. The operation books at St Mark's have been excellently kept, and any one interested in the matter could easily satisfy himself that the statistics of operations and deaths resulting are worthy of entire confidence.

Let us see how the matter stands. In St Mark's Hospital the death-rate from all causes in operations on internal hæmorrhoids by ligature during a space of more than forty years is just one in 620. Now hospital practice is notoriously more fatal than private practice, yet what a brilliant result has been obtained. Referring to the four cases of tetanus occurring in St Mark's in the months of March and April, 1858, they must be considered quite exceptional, as since that year no case of the disorder has appeared. Mr Curling, in his work on 'Diseases of the Rectum,' says, "In the year 1858 tetanus was very rife in London." I have the good

fortune not to have had one single fatal result from the ligature, either in my public or private practice, which now extends to more than 1100 operations.

Copeland, in his work, mentions that he had only seen one death.

Bushe that he never had a fatal case with the ligature.

Sir Benjamin Brodie, whose experience was unusually large, states he never lost a case.

Mr Syme says, "In the whole of my practice I never met with a case which either terminated fatally, or even threatened to do so."

Mr Curling, in the last edition of his work, affirms "that, with one exception, no fatal case of operation by the ligature has occurred either in my public or private practice."

Mr Quain had only one patient succumb in his practice with the ligature.

Mr Ashton has not recorded a single death from his method of operating by ligature.

My colleague Mr Gowland, who in all probability has had a larger experience in rectal surgery than any other surgeon in London, has had a most remarkable success with the ligature in hæmorrhoids; and after a prolonged trial with the clamp and cautery, has finally abandoned it.

My friend Mr Alfred Cooper, with large opportunities for arriving at a correct judgment, informs me that he has never had a fatal case with the ligature, and now does not employ the cautery. My remaining colleague, Mr Goodsall, is also at one with me in preferring the ligature.

Let us for a moment see what our American *confrères* think:

Gross, in his great work on surgery, says: "The operation (ligature) is as simple of execution as it is free from danger, and certain in its results."

Dr Van Buren, so well known here, and whose experience in the treatment of rectal disease is very extensive, says: "I have never had an unpleasant symptom."

Bodenhamer states: "I have yet to encounter my first serious accident."

I could go on citing the favorable opinions of my American friends with regard to the safety of ligation, but I feel I need not add anything to what I have written to prove the great success in every way of the operation when properly performed, and the patient well treated and placed in good hygiènic condition. It must be clear if the death-rate at St Mark's Hospital, in so many years, has been one in about 620 cases, equally good results ought to be obtained in private practice. If patients are placed in hospital wards teeming with septic poisons, the deaths which take place cannot be justly ascribed to the operation.

Mr Annandale, of Edinburgh, in the 'Edinburgh Monthly Journal' for June, 1877, publishes an article "On the Operative Treatment of Internal Piles," and comes to the conclusion that the clamp and cautery is the safest and best operation—that Mr Annandale cannot base his conclusion on his *own* experience is quite evident; for he says (page 1080): "In about two hundred cases of this operation (the ligature) I have met with at least *four* instances of fatal pyæmia." What a fearful mortality in such an operation! And he goes on to say that, "since 1872, I have operated with the clamp and cautery on twenty-four patients

with *one* death." Still more fearful mortality! So, with a good deal of theoretical argument, Mr Annandale tries to persuade us to abandon the ligature in favour of the clamp and cautery as the safer operation, while his own experience confutes his theories; his two per cent. of deaths with the ligature is a terrible fatality; but his clamp and cautery success is not half as good (one death in twenty-four cases), thus bringing the operation on piles into the category of a really dangerous surgical proceeding.

When any gentleman can inform me of an efficacious operation upon piles, the mortality from which, in a large number of cases, extended over a long series of years, is less than one in 620 patients, I shall be perfectly prepared to reconsider the question; until such time arrives I shall continue the practice I have adopted.

CHAPTER X

COMPLICATIONS OF HÆMORRHOIDS

Hæmorrhoids are not infrequently complicated by the coexistence of other affections of the rectum. I have often seen piles, polypus, and fissure in the same patient.

I will mention the more frequent complications, so that the reader may be warned against the error of being satisfied with merely finding his patient has piles without searching to see if any other malady be present.

Fissure or small painful ulcer is very often associated with hæmorrhoids, and a careful examination is needed to detect it, as one of the tumours may overlap the fissure so as entirely to conceal it. Always suspect fissure or ulceration when your patient tells you he suffers pain on defæcation, or pain continuing long after the bowel is relieved.

In operating on hæmorrhoids, when fissure or ulcer was found to exist, I always used to divide the superficial fibres of the sphincter muscles so as to set them at rest. I now find this unnecessary, as the dilatation I make of those muscles allows the fissure or ulcer to heal. It is well in these cases not to omit examining the upper part of the fissure, to see if any sinus runs up from it; if so, it must be laid open.

Fistula is not so common a complication, but I have

often seen it. If the fistula be well marked there is no difficulty in the diagnosis, but if it be of the blind internal variety, or if the external orifice be very small and concealed, as it may be, by an external flap of skin, it is quite possible to overlook it. I have frequently met with examples of this. I will relate a case in point:

A gentleman consulted me by the recommendation of Dr Risdon Bennett. His statement was, that three months ago he was operated upon for piles and was pronounced by his surgeon to be cured; but he still had occasional pain and throbbing in the anus; there was also a constantly recurring discharge which soiled his linen; it ceased for a day or two and then returned. He had mentioned this to the gentleman who operated upon him, and had been told he was only suffering from a little weakness of the bowel, which would soon right itself; of this, however, the patient could not feel convinced, and he was alarmed, thinking that he would have a return of his hæmorrhoids. The frequent discharge and staining of his linen gave him great concern, and worried him to a degree which seemed almost absurd, and quite disproportioned to the gravity of his case. This I have often observed in persons of refined feelings. In hospital practice patients do not often complain of a discharge unless it be very copious or accompanied by pain. On a careful examination of this gentleman I detected, just at the verge of the anus, and hidden by a small tab of skin, a minute orifice; a fine probe passed into this and through a short sinus, not quite three quarters of an inch in length, into the bowel. From the history of the case (there having been always the same purulent discharge) I had no doubt that this slight fistula had existed in conjunction with the hæmorrhoids, but the major malady had masked the minor one. I laid open this sinus, and in a week the patient was quite well and relieved from his annoying discharge.

When examining a case of hæmorrhoids, never omit to pass the finger well into the bowel to ascertain that no stricture, ulceration, or malignant disease is present. I have made the same remark before, but I do not mind repeating it, as I have so often seen this grave error committed. It has many times occurred to me to find that patients have been operated upon in

metropolitan hospitals by eminent surgeons, for piles, when all the time they were suffering from cancer or ulceration of the bowel. I need scarcely say that an operation under such conditions cannot be of any benefit to the patient.

A healthy looking young man, æt. 28, came into my consulting room quite recently, sent to me as a case of piles for operation; a few questions, however, satisfied me that there was something "plus" the piles. An examination revealed carcinoma high up the rectum, the lower margin not being nearer than three inches from the anus. The termination upwards could not be reached, but by using my ball-staff I found indications of contraction and great hardness at the upper part of the rectum or commencement of the sigmoid flexure.

Impaction or accumulation of fæces in the rectum or colon is another complication worthy of mention. I have said that, prior to operating upon piles, the bowels ought to be thoroughly cleared; this is too often neglected. It is remarkable how much better patients do when the portal system has been unloaded by free purgation; and unless there be some care exercised in this matter you may occasion yourself a good deal of trouble, to say nothing of the suffering of your patient. For my own part, I am tolerably certain that, in the majority of those cases where the healing process does not go on kindly, a loaded colon and congested liver is the chief cause. I saw with a professional friend a lady upon whom he had operated for slight internal hæmorrhoids, and in whom unhealthy ulceration had followed. Prior to the operation the patient was not in bad health, and might reasonably have been expected to do well.

Before examining the rectum I inquired as to the state of the bowels for some time past, and from the account given I was quite satisfied that there had

not been a good clearance effected. Moreover, although action had taken place since the operation, there had been only scanty relief, and when the patient got out of bed and stood up, she experienced inclination to go to stool, and abortive straining on doing so. On introducing my finger into the bowel I found it quite blocked up by hardened fæces. This impaction was got rid of by manipulation and enemata; then aperients were given by the mouth, and a large quantity of lumpy motion was evacuated. When I saw this patient again in about ten days the ulceration was nearly healed.

I operated for hæmorrhoids upon a young gentlemen whose bowels, he said, generally acted fairly, and had done so freely before the operation; but at the end of a week he complained of abdominal pains and desire to go to stool, without having a satisfactory evacuation; this led me to examine his abdomen, and I found his colon quite dull on percussion, nearly throughout its course. A brisk purge administered daily for three days, and followed by enemata, produced most copious action, and soon improved his general condition, and hastened the healing of the wounds.

Another marked instance of this complication occurred in a lady recommended to me by my late friend Dr. Daldy. She was a delicate person, who had long suffered from the frequent combination of uterine and rectal disorder. She had a considerable and painful prolapsus of the bowel when she came under my care, her uterine malady having been previously greatly ameliorated, if not cured. The bowels acted daily and, according to her statement, sufficiently. She had the usual aperient administered, and also an enema prior to the operation, with good effect, but about the time of the separation of the ligatures she was seized with severe abdominal pains and straining, and on examination I found the rectum blocked up by hard, dry, friable lumps of motion, which were with very great difficulty got rid of; after this aloetic aperients procured the evacuation of a really enormous collection of fæces, it seemed as if the whole colon had been fully charged. All this delayed her recovery, and caused a great deal of pain, but eventually she got well.

Polypus is sometimes found in conjunction with

hæmorrhoids. I operated some time back on the wife of a well-known physician, who, in addition to hæmorrhoids, had a large-sized, hard, pedunculated polypus.

My colleague, Mr Goodsall, assisted me once in operating upon a lady who had a fissure, polypus, and hæmorrhoids; her sufferings had been really very great, and she had lost much blood. In these cases a ligature must be placed upon the polypus as well as the piles.

A gentleman with fissure, hæmorrhoids, and a very large fibrous polypus, with a hard peduncle, was recently introduced to me by my friend Dr Wm. Henry Stone. This condition, by the patient's history, had clearly existed for years, and caused him great pain when the growth came outside the anus, which it frequently did at stool. This gentleman had been operated on twelve years before my seeing him, a small polypus being then removed.

CHAPTER XI

HÆMORRHAGE AFTER OPERATIONS UPON PILES

This will occasionally take place, and it may be either accidental, recurrent, or secondary.

Just as in midwifery you may go on for years without the occurrence of an untoward event, and then get a batch of troublesome cases, so it is in this operation —you may perform it a large number of times without the slightest unpleasant symptom resulting, and then have a run of cases which cause you more or less anxiety.

If the operation be carefully done, primary hæmorrhage is very rare; occasionally, when large and very vascular hæmorrhoids are ligatured, and there is also much superabundant skin cut away, a small vessel will bleed when the patient recovers from the shock: this is a trivial matter, and a ligature is easily applied. I think it will scarcely ever occur if the precaution of putting on a good pad of wool and a T bandage is adopted. Now and then, particularly if the patient has been unruly under the operation, the ligature may not be placed quite at the bottom of the incision, and some bleeding may then result. The ready way to arrest this is to draw down the bowel by the ligatures, the patient assisting you by straining; you will then, in all probability, be able to see the bleeding vessel

and tie it. If you do not see it, or if a general oozing is apparent, pass all the ligatures through a hole made in the middle of a small round sponge, then tie them across a piece of stick, and twist this round. In this way you construct a sort of tourniquet, and can make firm and strong pressure with the sponge, so that no bleeding can take place. In a few hours after it is all arrested the stick may be removed.

In the old plan of operating with a double ligature and transfixion of the base of the hæmorrhoid, bleeding used from time to time to occur from perforation of a vessel—usually a vein—by the needle. When this takes place, on the ligatures being tied, the vessel would be more or less torn open, and bleeding would ensue at the time, or shortly afterwards.

I have more than once been called to see a patient to whom this accident had occurred. It is easily remedied by drawing down the piles by the ligatures, and placing *one* ligature above the spot where the bleeding hæmorrhoid was transfixed.

In cases of sloughing hæmorrhoids the parts are sometimes so much disintegrated that very free hæmorrhage takes place; at the same time a ligature is not easily applied, in consequence of the tissues readily breaking down.

I once had a rather startling accident occur after operating. A gentleman came up from the country, and was operated upon by me for piles; it was a bad case, and five ligatures were applied. The night following the operation he was attacked quite suddenly with delirium tremens, and in a paroxysm of mania tore off three of the ligatures. The loss of blood was very considerable. When I arrived at the house I found the patient, the bed, and the floor of the room smothered with blood. I had much difficulty in placing ligatures on the bleeding vessels, as the patient, although very collapsed, was capable of offering resistance. Curiously enough, he did exceedingly well afterwards; I

do not think it delayed his recovery a single day. He had not been an habitual drunkard, but the fear of the operation induced him, for about a week before he came up to undergo it, to drink quantities of champagne and brandy; this, with the chloroform and the shock of the operation, brought on the acute delirium.

Another case of accidental hæmorrhage occurred to a patient of my friend Mr Blackman, of Highbury. I operated for him upon an elderly gentleman who had a very large hæmorrhoid, which had undergone fibroid degeneration; it was situated dorsally, was as large as a hen's egg, and always came down at stool, giving a great deal of trouble. Ulceration had taken place at the upper part of the pile. I placed a ligature upon it, and then cut the tumour off. At the time of tightening the ligature I felt that the tissues were very friable, and I examined the site of the ligature to see if it had cut through much, but could not discover that it had done so, and there was no bleeding. When I saw the patient in the morning with Mr Blackman, we found that considerable hæmorrhage had taken place since 4 a.m., the cause being probably as follows:—He had not passed any water, and feeling very urgent desire, he jumped quickly out of bed, and strained violently to empty his bladder; at the time he was doing this he felt something give way in the rectum, and on getting back into bed his wife observed that he was bleeding. I forcibly dilated his sphincter, and then with a vulsellum drew down the bowel, and placed another ligature above the first one. This at once arrested the bleeding, but the next day but one it recurred to an alarming extent, and I found the parts so soft and sloughy that no ligature would hold; under these circumstances I plugged the rectum (in the manner I will presently describe). This plug was retained for about ten days, and he had no more hæmorrhage, and eventually did well, although for some time he gave Mr Blackman and myself no little anxiety.

I will relate one more case. In the year 1866 I operated at St Mark's with the clamp and cautery upon a really severe case of internal hæmorrhoids. The parts were very vascular, and I had considerable difficulty in controlling the hæmorrhage, having to apply the cautery a good many times. When the patient left the operating table there was no bleeding at all; but in the evening I was sent for by the house-surgeon, as very free arterial hæmorrhage had come on. The patient was very timid and the parts very tender, so that I had much trouble to introduce a speculum; and when I did I could not find the spot whence the blood came. I ordered the injection of ice-water and perchloride of iron; this had the effect of arresting the flow, but only temporarily.

When I saw the patient early in the morning I was told that he had lost a good deal of blood during the night, and the flux was still going

on, so I determined to find the vessel if it were possible. Accordingly I passed my finger into the bowel, and on that I guided a vulsellum, and, catching a good hold of the rectum, I pulled that part down; while that was held I used another vulsellum on the other side of the bowel, and thus succeeded in bringing the inside of the rectum well into view. This done, I found two points from which the blood escaped in jets, so I placed ligatures upon these vessels, and the hæmorrhage was arrested.

I leave the reader to imagine how much pain the patient must have suffered from this proceeding. He had such a tendency to faint that I was afraid to give him chloroform. Ether was not then in vogue.

These cases may, I think, be correctly styled accidental or recurrent hæmorrhage. Of late years I have had this form of hæmorrhage occur much less frequently. As a rule, I should say what we have most to fear is *secondary* hæmorrhage, which usually comes on at or about the time of the separation of the ligatures. This form of bleeding occurs generally in elderly people of broken-down constitutions, or in those who have been very free livers. I may say, as far as my experience goes, that this hæmorrhage is usually more venous than arterial. Of course there are exceptions to the rule of its occurrence in elderly people; here is one:

A gentleman, æt. 23, had all his life suffered from rectal disease: when a child from procidentia, and by the time he was eighteen from bleeding hæmorrhoids. When I saw him he had a prolapse of the lower part of one side of the rectum, which came down on very slight exertion; he was very thin and weak, and subject to fainting. I put two ligatures upon his prolapsus, assisted by my colleague Mr Goodsall. Mr Buxton Shillitoe administered the chloroform with his usual care and discrimination, and although very little was given and the operation did not take one minute to perform, the patient fainted, and we had considerable trouble in recovering him. I was quite convinced that had the chloroform been given recklessly or unskilfully death would have ensued.

This gentleman went on very well indeed until the sixth day, when the ligatures came away on the bowels acting. Soon after this—he had returned to his bed—he said he felt faint, then that he wanted to go to stool; and on being assisted up to do so he nearly filled the pan with dark blood and fainted away. I was sent for in great haste, and directly saw that he had lost and was still losing a large quantity of blood. This was not a case in which one could afford to temporize, so I at once plugged his bowel with cotton wool and persulphate of iron, which I had with me. I was quite sure that it was no use to search for the bleeding vessel or vessels. The plugging immediately arrested the hæmorrhage, and I kept the wool in for ten days; I then carefully removed it, and no further bleeding took place. The patient soon got quite well. This is the only case of severe secondary hæmorrhage I ever had in a young person.

An elderly gentleman came from the country to be under my care. He had been much in hot climates, had led rather a dissipated life, and worked very hard. He was only fifty-four, but he looked sixty-five at least. He suffered from a constantly prolapsed hæmorrhoid; I saw no reason why it should not be removed; accordingly I applied a ligature in my usual way. The patient did capitally until the fifth day, when the ligature came away on his going to stool. I saw him in the afternoon and he was very comfortable, and said he should get up and lie on the sofa. I made no objection, and he did so.

At night I was summoned hastily, as he was bleeding; when I arrived I found him quite collapsed, and the blood was literally pouring out from his rectum. It had come on suddenly when he was moving from his sofa in the sitting-room to the bedroom on the same floor. I plugged instantly and arrested the bleeding; he suffered a good deal of distress from flatulence, and I was compelled to remove the wool and sponge on the sixth day. To my intense annoyance, after twenty-four hours the hæmorrhage recurred quite as badly as at first. I was thus obliged to replug the rectum, but this time, not wishing to remove the plug early, I adopted the precaution of introducing a full-sized elastic catheter at the side of the wool, so that he was able to get rid of flatus through it. This was all retained for nineteen days, when I gradually and carefully drew the plugging out; there was no further bleeding. I am free to confess that this was a very anxious case.

A man, æt. 62, was operated upon by me at St Mark's Hospital, in July, 1868. He was a feeble man, and had no power in his sphincter muscles. He suffered from prolapsed hæmorrhoids, which were always down. I used the clamp and cautery.

On the fourth day hæmorrhage commenced after action of the bowels; at first it was small in quantity, and passed only when he moved or coughed; it came away fluid, and also in small clots; it was venous in character. Ice water with perchloride of iron was injected, but failed to arrest it. When I saw him he was very pale and faint, and the hæmorrhage was nearly constant, the blood slowly trickling out of the anus. On examination I found the bowel full of blood. I plugged the rectum fully with cotton wool, into which was dusted the persulphate of iron; this at once stopped the bleeding. The plug was retained for six days, and when it was removed there was no return of hæmorrhage. This patient was very weak and ill for some time, and he suffered from an attack of purpura. Good diet and stimulants rallied him, and he left the hospital quite recovered.

When bleeding is taking place internally and from tightness of the sphincter it does not escape, the patient will always tell you "that he feels something running inside the bowel," and this may continue until the rectum (and even the sigmoid flexure) is full of clots and fluid blood. If you suspect this and pass your finger into the anus you will excite contraction of the gut, and the contents will then be expelled with more or less force. The trickling sensation I always take as a pretty certain indication of internal bleeding, and I act accordingly. When you dilate the sphincters prior to operating this retention of blood in the bowel is not likely to take place, as there can be no contraction of the orifice of the anus. This is another advantage resulting from dilatation. These cases do very well if prompt and judicious treatment be adopted. I have never lost a patient, although I have seen persons in considerable danger. If the bleeding were allowed to continue long, I have not the slightest doubt that a fatal issue would be the result; so I will in some detail describe the method of treatment I consider most advisable.

I have found it utterly futile in cases of secondary hæmorrhage to try and ligature the vessels; it is usually the large veins or venous sinuses which are opened by sloughing or ulceration, and when you introduce a speculum and try to find the source of bleeding, you can only see that the whole rectum is filled with blood, and on passing your finger you will feel a quantity of clots.

When called to cases of severe hæmorrhage always arm yourself with a full-sized, bell-shaped sponge and plenty of cotton wadding; take also some persulphate of iron, or if you have not that, powdered alum or tannin. Thread a strong silk ligature through, near the apex of your cone-shaped sponge, and bring it back again, so that the apex of the sponge is held in a loop of the thread. Then wet the sponge, squeeze it dry, and powder it well, filling up the lacunæ with the iron or other astringent. Pass the forefinger of your left hand into the bowel, and upon that as a guide push up the sponge—apex first—by means of a metal rod, bougie, pen-holder, or a rounded piece of wood, if you can get nothing better. Now, this sponge should be carried up the bowel at least five inches, the double thread hanging outside the anus. When this is so placed fill up the whole of rectum below the sponge thoroughly and carefully with cotton wool well powdered with the alum or iron. When you have completely stuffed the bowel, take hold of the silk ligature attached to the sponge, and while with one hand you pull *down* the sponge, with the other hand push *up* the wool. This joint action will spread out the bell-shaped sponge, like opening an umbrella, and bring the wool compactly together; if this is carefully done no bleeding

can possibly take place either internally or externally. Half measures in these cases are worse than useless, as valuable time is thereby lost. This plug should remain in at least a week, and it may be retained a fortnight or more. It may be thought that much straining and pain would be caused by it. I assure you this is not the case; if you keep your patients fairly under the influence of opium they very rarely complain. The only trouble may be wind, and this often will find its own way out. If you fear this, and have a male catheter or flexible tube handy, you may introduce it through the centre or by the side of the sponge, packing the wool around it. I have done this several times, and found the patients not only passed wind through it, but broken-down blood and liquid fæces. I am sure you need never fear a case of hæmorrhage if you only plug methodically and thoroughly. I think very highly of the persulphate of iron; no styptic in my opinion answers as well. It is far superior to the perchloride, as it does not cause burning or pain. In slight cases of bleeding the injection of a strong solution of tannin or even ice water, keeping a lump of ice on the sacrum, and the patient cool and quiet, may be sufficient, but I say *never leave* a patient who has at all continuous or free hæmorrhage without the plug.

Practitioners who are not frequently operating on hæmorrhoids cannot be expected to possess all the most modern appliances, but I can recommend my friend Mr Gowlland's tubes, which are made of vulcanite, shaped like a bougie, seven inches in length and about one inch in diameter; the base terminates in a rim, which is perforated, so that it can be sewn to a

bandage. I have had tubes made with holes two inches from the apex, so that sponge can be sewn on around them. When this is passed up the rectum you pack wool all around it. The advantages are obvious; flatus, liquid fæces, and broken-down blood can pass; you can also inject from time to time a solution of carbolic acid or Condy's fluid, which will keep the part clean and sweet.

The after treatment of these cases requires considerable care and attention to details; generally the patient is very greatly alarmed at the bleeding, but this will be soon allayed when he finds you are prompt and confident of your own powers to succour him. After the hæmorrhage is arrested by the plugging the recumbent position must be maintained, and on no account whatever should an upright posture be assumed. If the packing be tight, frequently retention of urine will occur, and you must pass a catheter; but you should, if possible, at once teach the patient to introduce the instrument for himself. A Mercier's flexible coudée catheter goes so readily into the bladder, that any but the most timid person may in one lesson acquire the art. The buttocks and lower part of the back should be kept cool. I employ dry cold, by means of ice in an india-rubber bag, applied to the sacrum. If the patient is excedingly collapsed do not apply cold. I have found hot sponges to the sacrum advantageous. Stimulants may be given, but it is better, if possible, to wait for some hours and observe what amount of reaction takes place; this is sometimes considerable, and will make you wish that you had withheld alcohol or used it very sparingly. As soon as it can be taken, nourishment is to be given, and

Liebig's cold soup, which can be quickly prepared, I have found a wonderful restorative.* Hot liquids, I need scarcely say, are to be avoided. I do not think it necessary to keep these patients entirely on fluid diet; directly they can take solid food let them have it, but it should be nourishing and easy of digestion. As secondary hæmorrhage generally occurs in persons whose blood and tissues are deficient in plastic material, the aim of treatment must be to remedy that defect, and thoroughly nutritious food judiciously administered is, I imagine, the most valuable means to that end.

I do not place much trust in the internal use of astringent remedies. The hypodermic injection of ergotine I shall use when I have a case that I consider not very urgent, but I always prescribe iron, not only as a hæmostatic, but for its blood-repairing property. I prefer either the Tinct. Ferri Perchloridi, or the Liq. Ferri Peracetatis. If the stomach bears this well full doses may be given twice or thrice in the day; in addition, a pill containing one grain of solid opium night and morning, or at night only, if the bowels do not exhibit any tendency to act and there is no straining, will generally meet the requirements of the case.

* Liebig's cold soup is prepared thus:—Take 8 oz. of raw lean beef, finely minced, put it in 20 oz. of cold water, add 10 drops of strong hydrochloric acid and a little salt; let it stand half an hour and then strain. One or two ounces may be given every half hour.

CHAPTER XII

PROCIDENTIA RECTI

THERE is sometimes a confusion of ideas occasioned by the use of the words procidentia and prolapsus.

Internal hæmorrhoids, when they have come down outside the anus, are said to be prolapsed, and the case is frequently called prolapsus ani; but there is a very marked pathological distinction to be observed between prolapsed internal hæmorrhoids and prolapsus of the rectum.

Prolapsus is a descent of the very lower part of the rectum, the mucous membrane and sub-mucous tissue, both occasionally thickened, being turned out of the anus. Now, this differs from prolapsed hæmorrhoids thus :—The hæmorrhoids exist as separate and distinct rounded tumours, while the prolapsus may be seen to surround the anus without any division into definite tumours, only the natural folds of the bowel being observed; generally there is one distinct fold towards the perineum, and the remainder forms a horseshoe-shaped projection around the sides and back part of the anus. The appearance and touch also of prolapsus differs from piles in its not being smooth, hard, and shiny, but soft and velvety.

If you thought fit you would operate upon such a

case in the same manner as you would upon internal hæmorrhoids, with this exception, that the larger segment of the rectum will require to be divided vertically into two or three portions, in order that several ligatures may be applied to ensure a complete strangulation of the part.

True procidentia is the descent of the upper part of the rectum, in its whole thickness, or all its coats, through the anus.

There is a variety of procidentia which one may call intussusception, the upper part of the rectum descending through the lower part; this is diagnosed from ordinary procidentia by there being a more or less deep sulcus around the inner column of the intestine, so that there are, as it were, two cylinders of rectum, one inside the other. This condition is often associated with, and caused by, the growth of a polypus; it gives rise to a train of very distressing symptoms, which may continue long after the removal of the growth which has been the starting-point of the malady. I had a lady under my care, sent to me by Dr Gervis, who some time before had a rectal polypus removed, but she still has great suffering; a burning, full sensation in the bowel attended with tenesmus and difficulty in defæcation. She has an intussusception of the upper part of the rectum into the middle and lower part; the bowel does not generally come outside the anus, but approaches, when she strains, near to it. I have seen many cases of this kind. One very troublesome case, a middle-aged single lady, sent me by Dr J. Grey Glover, had an intussusception and constipation, with constant straining; she suffered greatly, and took all kinds of aperients and other medicines.

At last she regained much comfort by following out my suggestion —of always having action of the bowels lying down, and keeping recumbent some hour or so afterwards. The worst thing that can be done for these patients is to give way to their craving for purgatives.

Sometimes a procidentia occurs conjointly with internal hæmorrhoids; in this case, when the procidented gut is gently returned, there still remains outside the anus a ring of hæmorrhoids, or loose and thickened mucous membrane; and I may mention that these cases are the most satisfactory to treat, as ligature of the hæmorrhoids will almost certainly cure the procidentia. This was clearly shown by the late Mr Hey, of Leeds.

Procidentia of the rectum is more often seen in children than adults, although it is by no means a rare affection in women—particularly those who have borne many children—and in men in advanced years. Procidentia in children is much favoured by the formation of the pelvis, the sacrum being nearly straight. Moreover, all infants strain violently when their bowels act, even when their motions are quite soft. There appears to be some physiological necessity for this, which I do not pretend to explain or understand; but these facts are not quite sufficient to account for the proneness of children to this malady; there is always, in addition, some inherent weakness or extraneous source of irritation present by which excessive straining is caused. We may mention diarrhœa—often the result of strumous inflammation of the intestines, worms, stone in the bladder, phimosis, polypus recti, &c. There are many cases, however, to which we can assign no special cause,

where the child is not manifestly unhealthy, and no source of irritation can be detected.

I am sure that the very bad custom of sitting a child upon the chamber utensil, and leaving it there for an indefinite period, as practised by many mothers and nurses, is a fertile cause of procidentia.

In children the treatment is generally successful; it should first be addressed to the removal of any source of irritation; this accomplished, a cure is speedily effected. When no source of irritation can be discovered, the general health must be attended to. The child should never be allowed to sit and strain at stool; the motions should be passed lying upon the side at the edge of the bed, or in a standing position, and one buttock should be drawn to one side, so as to tighten the anal orifice while the fæces are passing; this device I have found to be very useful; it is recommended in 'Druitt's Surgery,' but upon whose authority I do not know.

When the bowels have acted, the protruded part ought to be well sluiced with cold water, and afterwards a solution of alum and oak bark, infusion of matico, krameria, or weak carbolic acid, should be thoroughly applied with a sponge; the bowel must then be returned by gentle pressure, and the child remain recumbent for some little while, lying upon its face on the couch, before running about. If there be any intestinal irritation, I generally order small doses of hydrarg. cum cretâ, with rhubarb at bedtime, and steel wine two or three times in the day. When the child is very ill-nourished, cod-liver oil does much good; the diet should be nourishing and digestible.

If these mild measures do not succeed, I find the

application of strong nitric acid the best remedy. Chloroform should be given, and the protruded gut well dried. The acid must be applied all over it, care being taken not to touch the verge of the anus or the skin. The part is then to be oiled and returned, and the rectum stuffed thoroughly with wool; a pad must after this be applied outside the anus, and kept firmly in position by strapping plaster, the buttocks being by the same means brought closely together; if this precaution be not adopted, when the child recovers from the chloroform, the straining being urgent, the whole plug will be forced out, and the bowel will again protrude. When the pad is properly applied the straining soon ceases, and the child suffers little or no pain. I always order a mixture of aromatic confection, with a drop or two of tincture of opium, so as to confine the bowels for four days. I then remove the strapping, and give a teaspoonful of castor oil. When the bowels act the plug comes away, and there is no descent of the rectum.

I have experience of this treatment in a great many cases; I never knew it to fail if properly carried out, and only on two occasions have I had to apply the acid more than once. The result, also, is not a temporary but a permanent benefit.

Procidentia in the adult is a very much more unmanageable affection, and is supposed in many instances to be quite incurable.

Numerous operative procedures have been recommended for the cure of this malady in its advanced stages, but I cannot say that I am satisfied with any of them, save one to be presently described, all but which I have seen fail. The application of fuming

nitric acid, or, what I think I prefer, the acid nitrate of mercury, often does much good, although, unfortunately, the relief is usually only temporary; I have had patients to whom the acid has been applied frequently, and very thoroughly, without effecting a cure. The use of the acid in such cases is not at all painful if the skin be not touched; it only occasions a burning sensation, which soon passes off; as in children, the gut should be oiled before returning it, and the bowels should be confined for a few days.

In old persons or in those who have a broken-down constitution, a very free application of the acid is to be deprecated, as a deep slough may form, some vessel be opened on its separation, and severe hæmorrhage take place; this occurred to me at St Mark's in the person of an elderly woman of feeble powers; she lost very much blood, and the flux was only arrested by plugging the rectum. The same observation applies to the use of acid to venous hæmorrhoids in old people. I saw a very profuse hæmorrhage take place in an old man who had been a free drinker, and had great dilatation of the veins at the lower part of the rectum, probably depending upon a diseased condition of liver. It was not thought desirable to use the ligature, and nitric acid was applied; it formed a considerable slough, and bleeding commenced in four days; before, in fact, the slough had separated; this patient nearly lost his life.

A stricture of the rectum may result from the use of the fuming nitric acid; I have seen this occur on several occasions, and very notably in a girl at St Mark's Hospital, to whom acid had to be applied three times, and in whom a stricture formed about three

and a half inches from the anus; this gave us much trouble, as, although the bowel did not come down, the symptoms were quite as distressing.

I have used strong carbolic acid in these cases, it is not likely to produce a slough, and you may apply it frequently—in fact, every day, if you desire to do so; benefit results, but the effect is not, in my opinion, so permanent as that derived from the acid nitrate of mercury.

In very bad procidentia good may be effected, but unfortunately very temporary, by dissecting off triangular or elliptical portions of the mucous membrane, and bringing the edges together with sutures of horsehair or carbolised catgut (I prefer horsehair). Care must be taken in performing this operation not to remove more than mucous membrane, for if you carry your knife into the sub-mucous tissue, you will get very profuse hæmorrhage. If you like you can clamp portions of the gut, cut them away and use the actual cautery, or you may apply a ligature; I have tried all these methods, but I can only say that I have achieved very partial success; the patient may leave the hospital very well, and you may congratulate yourself upon having effected a cure, but in a few months the bowel will again protrude, in all probability, as badly as ever.

In my last edition I said, "Dr Van Buren, of New York, has recommended in these intractable cases the application of the actual cautery to the gut in spots or lines, and also to the verge of the anus over the external sphincter muscle, so as to get contraction and thus support the bowel. This strikes me as a very good suggestion, and I shall certainly try it on a

case where other means have failed." I have now used this method on many hospital and private patients and effected permanent cures.

The procidentia in the adult is sometimes very large; I have seen it in a woman larger in circumference than the fœtal head, and seven or eight inches in length.

I have had, in my own practice, many cases of procidentia, in which there was a hernial sac in the protrusion, and in all it was perineal, as from the anatomy of the part, of course, it must be; you could return the intestine out of the sac, and it went back with a gurgle.

Directly the bowel is protruded you can tell that there is a hernia also present by the opening of the gut being turned towards the sacrum; when the hernia is reduced the orifice is immediately restored to its normal position in the axis of the bowel. I have seen similar cases in the practice of my colleagues at St Mark's, so the condition is not so very uncommon, but I have never found it in children.

In very old and bad cases of procidentia more or less incontinence of fæces always exists. There may be two reasons for this. 1st, loss of tone in the sphincters; the frequent protrusion stretching these muscles so that they lose a great deal of their contractile power; and 2ndly, the mucous membrane gets so altered in structure as to lose, in a great degree, its natural sensitiveness; thus, when fæcal matter comes into the lower part of the rectum, the sphincters are not stimulated to action, nor is the patient aware of its presence.

The operation by the hot iron or Paquelin cautery

suggested by Dr Van Buren is thus performed by me, The patient is put under the influence of ether, and if the part be not down it can be readily drawn fully out of the anus by the vulsellum. I then, having the intestine held firmly out; with the iron cautery at a dull red heat, make four or more longitudinal stripes from the base to the apex of the protruded intestine. I take care not to make cauterisation so deep towards the apex as at the base, because near the apex the peritoneum may be close beneath the intestine, while a deep burn near the base is not dangerous. I take care to avoid the large veins which can be seen on the surface of the bowel. If the procidentia be very large I make even six stripes. I then oil and return the intestine within the anus; having done this I saw with the hot iron deeply through the sphincters on both sides of the anus, and then insert a small portion of oiled wool. From the day of operation I never let the patient get out of bed for anything, the motions are all passed lying down, consequently the part never comes outside. If the wounds have not all thoroughly healed in a month, I continue the recumbent position for two weeks more, by which time it very rarely happens that all is not healed. The patient can then arise and get about, but still for some time I enjoin that evacuation of the motions should be accomplished lying down. The reason for the success of the treatment is simple enough. When the burns are all healed, the bowel, by contraction of the longitudinal stripes is drawn upwards, and circumferential diminution also takes place. In these cases before operation the sphincter muscles have quite lost power, the anus is large and patulous; by sawing through the

anus with the iron the muscles contract and regain their power, the patient having strength to cause the anus to close at will, and even to some extent to squeeze the finger when introduced. With this method of treatment I have had great success, many persons being quite cured, while others have been greatly benefited so as to be able to work, by only wearing a pad of cotton wadding.

In a case I had with Dr Way, of Eaton Square, a lady who had for years suffered from a procidentia recti five inches long and nearly three in diameter, a perfect cure was effected. She wrote me on the anniversary of the operation to say the bowel had never come down, though she walked very much and had to go up and down flights of stairs constantly. I need not say how grateful she was. Another case in the practice of Dr. Woodhouse of Fulham, in which several operations had been performed unsuccessfully before I saw him, and the procidented intestine was very large, a permanent cure was effected. In a very bad case attended by Mr E. Carr Jackson and myself, the vessels on the bowel were so large that great bleeding took place when the cautery was applied, and ligatures had to be used. There was also secondary hæmorrhage when the sloughs separated to an extent requiring very careful plugging. This patient was very anæmic through large losses of blood prior to the operations, and he was blanched to a dirty white, yet he thoroughly recovered, and the bowel has never again protruded. Several hospital cases I have had during the last three years have all done admirably, though some have required much care and watching for months after the operation. Should success not attend the first at-

tempt I should be quite prepared to repeat the operation, with every hope of ultimately conquering this distressing malady.

Sometimes when a large portion of the bowel comes down, there is much difficulty experienced in returning it. I have found, on several occasions, that the passing up the bowel of a large flexible bougie, so as to carry before it the upper part of the descended gut, is of great service; gentle taxis should at the same time be used, and in this manner the mass can generally be returned. When the gut comes down, and the patient cannot get it back and does not seek assistance, it gets tightly girt about by the sphincter, great swelling takes place, and sloughing may ensue. I have seen many cases of this kind, but, as far as my experience goes, the sloughing is partial, and only the mucous membrane separates. After a few days' rest, with the buttocks well raised to favour the return of blood, the part can be replaced and considerable benefit may result. The only case I ever saw where anything like dangerous or deep sloughing took place was in consultation with a medical man who had most assiduously and constantly applied a bladder of ice to the protruded part, and this had so much favoured sphacelus that nearly the whole mass came away, and there was free secondary hæmorrhage. In this case the sloughing was so considerable that a very intractable stricture resulted. This shows the necessity of care in the application of ice; if it be too long continued, or if the patient be old or of feeble constitution, dangerous results may ensue.

I am not aware of any internal remedy which is of much use in cases of procidentia, but small and fre-

quent doses of opium with confection of black pepper benefited some of my patients.

A nasty teasing diarrhœa is very commonly present, and as well there is a discharge of mucus, which keeps the linen always damp, and adds not a little to the general discomfort. Powdered acorns I have used frequently with advantage for the diarrhœa. The acorns should be baked, grated to powder, and the dose is one teaspoonful in half a tumbler of milk every morning. I have found this answer better than either gallic or tannic acid.

The frequent and bountiful application of cold water in these cases is to be most strongly recommended. Ordinary astringent lotions are not more useful than this.

CHAPTER XIII

POLYPUS RECTI

This disease was formerly looked upon as a very rare one; recently, however, it has been considered rather more common, as it is supposed that in times gone by, rectal maladies not being so well understood, many cases of polypus escaped diagnosis. At a meeting of the Pathological Society in February, 1873, a gentleman stated that he had seen fifteen cases in twelve months. His, I think, must be a somewhat singular experience. I find that I have noted altogether fifty cases without complication, as having occurred in my own practice. My statistics at St Mark's Hospital show that in 4000 cases of rectal disease there were only sixteen of polypus *without fissure*.

It has generally been believed that polypi are much more frequently found in children than in adults; this has not been the case in my experience, as twenty-eight existed in children under fourteen years of age, and twenty-two in older persons.

By the word "polypus" I must be understood to mean a *pedunculated* growth attached to the mucous membrane of the rectum, and generally situated not less than an inch from the anus. I have seen them quite two inches up the bowel, but only occasionally

more than that distance. In the majority of cases the polypus grows from the dorsal portion of the rectum, but I have found it on the perineal and lateral segments. I think some surgeons call those small mucocutaneous *polypoid* growths—which are so often found at the upper end of a fissure—polypi, and thus swell their statistics.

My friend Dr Daniel Mollière, of Lyon (whose work on rectal surgery surpasses all others in its pathology), says, "there is no word in surgery has been more abused in its use than the word 'polypus,' especially when applied to tumours of the rectum. In effect a neoplasm whether benign or cancerous, hard or soft, it does not matter, if it only does but adhere to the rectum by a stalk or by a base relatively limited, this neoplasm is a polypus of the rectum."

Polypi have been usually described as of two kinds—the soft or follicular, and the hard or fibrous. The former being found in children, and the latter in grown persons. I do not concur in the statement that the soft polypus is always the one found in young children, and I am of opinion that the true fibrous variety is rare even in the adult. In fact, this rough division is very far from the pathological truth, for the true fibrous polypus in its anatomy is an almost perfect counterpart of the fibroid tumour of the uterus. In the Hunterian Museum is one specimen of rectal polypus arising from the muscular fibres of the rectum, and it is in reality a fibro-muscular tumour, or in the nomenclature of Virchow a myoma. The few I have seen myself have been nearly as large as an English walnut; when cut through they are pale and they creak in cutting. The peduncle is about an inch and

a half long, they are always rooted above the sphincters, and do not usually come outside the anus, they do not bleed, but when they do protrude they cause pain, irritation, and spasm, and often set up an ulcer in the bowel. The discharge from them is of a very ichorous and ill-smelling character. These polypi have been observed and minutely described by both French and German pathologists and are considered quite exceptional specimens.

The polypi usually found in the adult are smaller than the mucous polypi of children; they are multiple. I have often found two growing from opposite sides of the rectum, also there may be two stems with one head only. The pedicle may be an inch or a little more in length, they are neither very hard nor soft, they are easily squeezed up; the peduncle is not uncommonly hollow and the polypus itself may be cystic; a large vessel runs up the stem, in some cases you can feel it beat.

The soft follicular polypus of children in the adult is no doubt rare, but not so rare as my colleague, Mr Gowlland, believes, who once stated at the Medical Society that there were *only* two kinds of polypi, "the soft and the hard." He had evidently not consulted foreign pathologists or he would have found there were numbers of different forms. The soft polypus is almost always found in women, and thus Dr Routh is likely, as he says, to have seen a considerable number. The stem is remarkably long and rather slender.

The polypi of children are small vascular tumours, with a peduncle often two inches long. They are about the size of a raspberry, and more resemble a small half-ripe mulberry than anything else; they bleed

very freely at times, and occasion in the young great debility. They are said to be either hypertrophies of the glands of Lieberkuhn, or of the mucous follicles of the rectum. They may be dangerous when high up by occasioning intussusception of the bowel, with total obstruction and death. When the peduncle is more than an inch in length they usually protrude at stool, and require to be returned after the bowels are relieved. They are sure to be described by the child's mother as piles, or as "the body coming down."

The peduncle is sometimes so slender that it breaks on very slight traction, and I dare say many polypi separate by themselves when the child is straining or passing a hard motion, and so get spontaneously cured.

A most valuable and original account of polypi in children may be found in the 'Medical Press and Circular,' May 5th, 1875, by the late Dr Bathurst Woodman, founded on his experience at the North Eastern Hospital for Children. He names five kinds of polypi, 1, the soft or gelatinous; 2, the cystic; 3, the papillomatous; 4, the dermoid; 5, the sarcomatous. Dr Woodman states the most common variety in children is the *hard* polypus (I must say that has not been my experience), and that "the children of arthritic parents, and those suffering from the syphilitic, tuberculous, and cancerous cachexiæ are most liable to these affections."

From the polypus of the adult I have seen many times abscess, ulcer or fissure, and fistula arise. A short time since a patient was sent to me with a fistula complete and dorsal; the probe passed readily through it into the bowel. In introducing my finger I found the

internal opening very large, and into it fell a hard polypus as big as a marble; the stem was quite half an inch long, and was attached near the promontory of the sacrum. I have seen on post-mortem examinations in both adults and children, full-sized polypi attached as high as the sigmoid flexure of the colon, and also in the colon itself; they cause diarrhœa and may bring on obstruction of the bowel from inflammation, which occasions paralysis of the muscular coat of the intestine. When fissure exists with polypus, the removal of the polypus and gentle dilation will cure both maladies.

The diagnosis of polypus has been stated to be difficult. I cannot myself see why. The history of the case and the symptoms will usually lead you to suspect what the disease is, and if you are careful to administer an injection and thoroughly search the bowel you must feel or see it. When they have long pedicles they slip away from the finger, but even then the peduncle at its attachment to the rectum can be readily felt.

The general symptoms in children are, frequent desire to go to stool, accompanied by tenesmus, occasional bleeding with discharge of mucus, and something protruding or appearing at the anus when the bowels are acting.

It is possible to mistake this disease for internal piles, procidentia recti, or dysentery. An examination after an injection will clear up the doubt in the first two cases, in the last the absence of fever, abdominal pain, and the appearance of the motions are sufficiently distinctive indications.

In the adult the history carefully inquired into may

be found peculiar. The patient will tell you that, without any previous marked discomfort in the rectum, he all at once discovered that a substance protruded on going to the closet. This is characteristic of the malady; until the peduncle becomes long enough to allow of the polypus being extruded or grasped by the external sphincter, but little or no inconvenience is felt, therefore the onset of the disease is considered by the patient as sudden; this is quite different from the history of hæmorrhoids.

I cannot at all say why these growths should arise; they are not often connected with hæmorrhoids or any other diseases of the rectum save fissure and intussusception. I have not even observed that constipation, that potent factor of bowel affections, obtains in these cases. I will relate a few cases of polypus, and then say a word or two about treatment.

Thos. B—, æt. 4, seen at the Farringdon Dispensary, October 27th, 1862. For more than twelve months has had what was supposed to be prolapsus of the bowel; he lost a good deal of blood at times, and was very feeble and anæmic. After an injection there came down to the anus a spongy, irregular-shaped, bleeding mass, fully as large as a medium-sized walnut; it felt soft but not gelatinous. A tolerably long pedicle connected it with the anterior wall of the rectum. I applied a ligature and cut the polypus off. He was ordered an astringent draught to confine the bowels for a few days. November 1st.—He took a dose of castor oil and the ligature came away on the bowels acting. There was no bleeding. Discharged cured.

Jane H—, æt. 7, brought to St Mark's Hospital, October, 1864. Her mother said that something came down when the bowels acted, and she bled a great quantity; she was obliged to put the substance back again. After an injection *two* tumours made their appearance, and I at first thought it was a case of hæmorrhoids; but on closer examination, passing my finger into the rectum, I found they were polypi, arising by two peduncles from quite an inch and a half up the bowel. One appeared to be attached dorsally, and the other laterally. I applied

two ligatures and snipped off the growths. In three days the ligatures came away, and she soon was quite well.

Henry de C—, admitted into St Mark's, March, 1866. He was six years old, and looked a very feeble delicate boy. For two or three years he had lost blood at stool, and latterly something had protruded after an evacuation; it had to be returned by pressure. He had taken a quantity of medicine, and been treated at several public institutions. After an injection a dark-coloured, very vascular polypus came into view; it had a well-defined, rather thick neck. I ligatured and cut it off; it was about the size of a raspberry. The thread separated in five days, and there was no hæmorrhage. I kept him under observation some time, giving him tonics; he was ultimately discharged perfectly recovered.

Hugh L—, æt. 9, a weak and irritable boy, emaciated and bloodless, suffers from cough. His mother says he has been troubled for five years at least with his bowel coming down whenever he went to the closet. He returned it himself by pressure. He had been taken to medical men, and also to hospitals, and she had been told that it was a weakness of the bowel, and had used ointments and lotions for it. The loss of blood he had sustained lately had been very severe. He did not suffer any pain. When I first saw him his mother said "his body" would come down if he stooped and strained a little, and on his doing so a round, vascular, bright-red, villous body, bleeding freely, was seen outside the anus. It was not at all painful to the touch. I found that it was connected with the bowel just above the interual sphincter by a pedicle of pale colour, at least two inches long. I applied a silk ligature and ordered him a little aromatic confection to confine his bowels. In three days the ligature separated on action taking place. I then prescribed for him some iron and cod-liver oil. In a a fortnight they brought him again, saying that another substance had made its appearance, and, sure enough, on his straining, a tumour, almost precisely similar to the former one, protruded from the anus. This also I ligatured. When I saw him at the end of a week I administered an injection to see if there were any more polypi, but I found none, so discharged him as cured.

Duncan J—, æt. 18, came to St Mark's in 1867. His health was generally good. For twelve months he has had something protrude from the anus on visiting the water-closet, and he had lost a quantity of blood. It retracted spontaneously on his rising up after the action. He has been under the care of many physicians and surgeons, and has always been treated for bleeding piles. He has a pain of a dragging burning character in the rectum, but it is not severe. After an injec-

tion a large (the size of a walnut) vascular, velvety-looking polypus appeared at the verge of the anus. The pedicle was rather thin, and not so long as usual. I held it with a vulsellum while the house surgeon applied a ligature; this was pulled so tight that it cut the peduncle at once. I was apprehensive of bleeding, and so kept him lying down in the out-patient's room for a couple of hours, when, finding there was no hæmorrhage, I sent him home. In a week he came and said he was quite well.

Martha H—, æt. 25, married; no children; several miscarriages; admitted into St Mark's 1865. She had one perineal hæmorrhoid and a dorsal fibrous polypus, the size of a hazel-nut. The polypus had a shortish broad pedicle; it was situated above the internal sphincter, and I found some difficulty in applying a ligature. She left the hospital well.

Mr. James B—, æt. 37, was sent to me by a medical man who thought he was suffering from piles. After an injection a polypus came down, resembling much that found in children, but it was firmer and not so vascular; it was about the size of a raspberry. I placed a ligature on the stem and cut it off. This gentlemen did not rest, as I advised him to, for a few days, and he had an abscess form a week after the separation of the ligature.

These cases of polypus forcibly illustrate the desirability of always giving an enema before making an examination, as it is only by seeing the patient just after the bowels have acted that you can make certain of your diagnosis.

The only treatment to be recommended is the removal of the growth. I do not think it safe either to cut or tear polypi off, as troublesome arterial hæmorrhage may ensue. I have seen them bleed very freely indeed, and, as they are attached rather a distance from the anus, it would be by no means easy to place a ligature upon the bleeding vessel.

I have used the clamp and actual cautery twice, and it answered very well, but it is rather a formidable proceeding, the idea of hot irons frightening the patient, although really the application is painless, as

also is the ligature; the latter has the advantage of being always at hand. The simplest mode is to seize the peduncle close to its base with the German catch-torsion forceps and gently twist the polypus around until it comes away. There is no danger of hæmorrhage, no pain, and scarcely any necessity for resting more than one day.

If a ligature be used I think it is very desirable that the patient should rest until it separates, and I usually order a mild astringent draught to keep the bowels confined for three days, then I administer an aperient, and on relief taking place the ligature comes away. In two cases I have seen abscesses follow where much exercise had been taken.

CHAPTER XIV

PRURITUS ANI.

PRURITUS ANI, or, as it may be well called, painful itching of the anus, is a most distressing malady. I have often heard a patient say that his or her life was rendered almost unendurable by it. In fact one very nervous invalid told me that unless he had obtained relief he believed that he should have gone out of his mind. It is very intractable, but I am confident that it is always curable if the patient will strictly, patiently, and persistently follow the advice of his medical attendant.

The disorder is frequently induced, or at all events kept up, by habits of too free eating and drinking, and its successful treatment therefore calls for a considerable amount of self-denial on the part of the patient; and so it often happens that as soon as the sufferer gets relieved he forgets all his prudent resolutions and relapses into his old ways of life; this is pretty certain to result in the return of his enemy in full force. He usually then blames his doctor, very rarely himself, and either gives up in despair all hope of cure, or seeks new advice, so that the affection comes to be considered as not only an exceedingly troublesome one, but almost incurable. I can truly state that I have rarely, if ever, failed to cure a patient who adhered

rigidly to my directions; and when a person the subject of bad pruritus comes to me I always say, unless you intend to conform most religiously to my directions as long as I think necessary I cannot cure you, and I had much rather that you consulted some other surgeon. Although, as I have said, free living often induces pruritus, I have met with many cases in very abstemious persons; I have seen a most ascetic clergyman suffer dreadfully, and I have had under my care a lady who nearly all her life has been a total abstainer from alcohol, and is a remarkably small eater, yet she has been quite a martyr to this complaint.

The irritation in the majority of cases is worse at night, especially when the patient gets warm in bed, so that often the greater part of the night is rendered sleepless and inexpressibly wretched; towards the morning, irritable and worn out, he falls off into a fitful slumber, from which he often awakens himself by scratching; this of course makes the part more or less raw, and materially adds to his discomfort in the daytime. I need scarcely say that the more the sufferer scratches the worse he makes himself, although it is very difficult indeed to avoid seeking the temporary relief it affords. Many persons have told me they would infinitely prefer decided pain to the dreadful and constant itching they have to endure, which really, after a time, becomes pain of a most sickening character. Excitable people are often greatly troubled in the day as well as at night, the itching setting in badly after exercise or on leaving the cold air and coming into a warm room.

Doubtless there are many cases of pruritus for which we are unable to assign any cause, and it may then be

considered as a pure neurosis ; but usually it is possible to discover some reason for the irritation in derangement of other organs. These causes may be mentioned —liver affections, internal hæmorrhoids, constipation, anything causing pressure upon the hæmorrhoidal veins so as to retard the return of blood from the rectum, disorders of the stomach induced by errors in diet, latent gout, uterine diseases, and we must not forget parasites ; as vegetable growths, pediculi similar to those found on the pubes ; and ascarides.

It is generally stated that there is very little alteration in the aspect of the part affected, and nothing is to be observed beyond a roughened, thickened, and more rugose state of the skin just around the anus. This I think is by no means usually the case ; sometimes there is a distinctly eczematous rash, the part being always moist from exudation ; at others there is a dry rugose condition, with bright redness consequent upon scratching ; occasionally there are a quantity of minute scales to be seen forming irregular rings ; often cracks are seen radiating from the anus, and even extending up to the sacrum ; but what I consider the characteristic condition—which may always be noticed when the disease is severe, and has lasted for any length of time—is the loss of the natural pigment of the part. To such an extent does this often obtain, that patches around the anus, extending backwards as far as the sacrum and forwards to the scrotum, are of a dull dead white, the skin looking more like very white parchment than natural integument, and if you pinch it up you will feel that it has lost its normal elasticity. I have seen a similar condition induced by genital pruritus in women.

When considering a case as to the question of treatment it is always important to discover the cause of the irritation ; particular articles of diet or drink affect some persons in a remarkable manner. I once had a patient who invariably got an attack of pruritus from eating lobster or crab, and of these shell fish he was inordinately fond, but rarely dared to indulge his taste. I have seen a similar result from eating salmon. Another of my patients was sure to suffer if he drank any quantity of champagne or ale, and the irritation once started was very difficult to arrest. There is but little doubt that excesses at table, combined with a want of active exercise, is not only a predisposing but also an exciting cause. Excessive smoking is another exciter of the disorder ; I have seen several instances, (where patients had a tendency to the malady,) of over indulgence in smoking being followed immediately by an attack of pruritus.

Spare no pains to investigate closely the habits of your patient. Stout plethoric people should be put on a rather low diet ; they should avoid all rich and highly seasoned dishes, eat but little meat, and take fish, poultry, vegetables, and ripe fruits. Interdict both beer and spirits, and restrict the drinking to a little light sherry or claret and Vichy or seltzer water. Coffee should be given up, weak tea or cocoa being taken at breakfast. Enjoin a walk of three or four miles daily, and, if possible, at such a speed as to induce slight perspiration ; let the patient take a sponge bath every morning, a warm or Turkish bath once in the week, and every night when retiring to bed wash the anus and parts around with warm water and tar or Castile soap. If the bowels are at all confined the

following prescription will be found beneficial:— Magnes. Sulph. ℈j, Magnes. Carb. pond. gr. v, Vini Colchici ♏v, Syrupi Sennæ ʒj, Tinct. Cardam. comp. ʒss, ex Inf. Chiratæ ℥j, twice or thrice in the day; and I also often order Pil. Plummer. gr. ij, Pil. Rhei comp. gr. iij, to be taken every other night for a week. The mineral waters of Carlsbad, Friedrichshall, Vichy, Hunyadi Janos, Pullna, &c., are good remedies, and I frequently employ them.

After the washing at night let the patient apply this ointment freely: Hydrarg. Subchlor. gr. x, Ung. Sambuci ʒj; or this lotion, which is very efficacious in allaying irritation; Sodæ Biboratis ʒij, Morphiæ Hydrochlor. gr. xvj, Acidi Hydrocyanic. dil. ℥ss, Glycerinæ ℥ij, Aq. ad ℥viij. Misce. Dab the part frequently. A chloroform pomade made thus is often useful: Chloroform ʒij, Glycerinæ ℥ss, Ung. Sambuci ℥iss. Misce. A lotion of borax with colchicum, a saturated solution of borax, the Ung. Boracis c. Vaseline (gr. x, ad ʒj), the sulphide of calcium internally and externally as recommended by Hebra, a pad of Tenax. Sir Benjamin Brodie had much success from the white precipitate ointment. The following prescription of the late Mr Startin has in eczema been of great service to many patients. I have seen a bad case cured in forty-eight hours by its application alone; Liquoris Carbonis detergens (Wright's), Glycerinæ ana ℥j, Zinci Oxidi, Pulv. Calamin, prep. ana ℥ss, Pulv. Sulph. precip. ʒss, Aquæ puræ ad ℥vi. Misce. The part affected to be painted thickly over once or twice daily and allowed to dry. Lastly, I must not omit to mention carbolic acid with glycerine or water as being very useful,

and also prophylactic after other treatment has succeeded.

All remedies may for a time be disappointing, and in long-standing cases you must be prepared to alter your prescriptions until you find what best suits your patient. In old and feeble persons the combination of the sulphates of iron and magnesia with dilute sulphuric acid and infusion of quassia often does good; with it I have cured a number of elderly people whose lives were embittered by long-continued itching. Often in them the parts are quite raw, and discharge an ichorous irritating fluid. The tonic and laxative mixture above mentioned and the borax lotion, with great attention to washing the part with warm water and Castile soap, have usually been followed with great benefit and ultimate cure.

When you have made up your mind that the essence of the disease is in the nervous system, as I think it often is, particularly in spare and delicate, excitable people, you should give arsenic and quinine freely, and be prepared to push them to their physiological effect. They may be taken separately or combined. I have rarely failed to cure this class of case by these remedies if persevered in; at the same time, of course, using local means to allay irritation. In obstinate, old-standing cases I usually commence the treatment by rubbing the parts thoroughly with a solution of nitrate of silver, ℈ij to the ounce; this softens the skin and induces a more healthy action and secretion. At times I have found Condy's fluid, undiluted, useful for the same purpose; it should be applied twice or oftener in the week.

The disorder is not, by any means, so common in

women as in men, nor is it frequently met with in young persons; but one of the most obstinate cases I ever had occurred in a delicate lad of seventeen. There did not appear to be any ascertainable cause for the irritation, and he was eventually cured by Liquor Potassæ Arsenitis in full doses and cod-liver oil. I had once a very intractable case in a man nearly eighty years of age, who was an inhabitant of the Bookbinders' Alms Houses at Kingsland; it resisted all remedies for some time, but eventually yielded to arsenic internally and the strong caustic solution frequently applied. In women the uterine functions should be attended to, and I have frequently found the citrate of iron, quinine, and strychnine very advantageous.

I have met with a good many examples of latent gout as a cause of pruritus ani.

A gentleman was under my care some time ago who had often suffered from pruritus, and always got rid of it when gout attacked him, and he was free for some time afterwards. Here diet is a most important element in the treatment. I think the irritation is best allayed by a strong solution of bicarbonate or bisulphite of soda frequently applied in a poultice. I have formed a good opinion of the usefulness of lithia water and the effervescing citrate of lithia. In some cases, where the irritation is very severe, colchicum with alkalies answers best, but, if it can be managed, a course of waters at Baden-Baden, Ems, or Carlsbad, will be found most beneficial.

I have a very excitable nervous patient who frequently gets an attack of pruritus when he is mentally overworked or irritated, and in this and similar cases I have found the bromide of potassium very advan-

tageous, and I have combined with this ten or fifteen grains of the hydrate of chloral to be taken at bedtime; it then generally ensures a fair night. An extended experience in this class of case has induced me to think most highly of the bromide of potassium and chloral in combination. In alternation with the chloral I have seen great advantage result from the Succus Conii in full doses (one to two drachms given three times in the day); to this may be added cod-liver oil after meals, by which means I think you may repair nerve tissue and induce a more regular distribution of nerve force. I am fully convinced that the more you treat pruritus ani as a general disease the more successful you will be; the difficulty in curing it has arisen in great measure from its having been considered as merely a local affection, and local means having only been applied for its relief.

In the treatment of pruritus ani it is well to avoid the internal administration of opium in any form; you may procure a night's rest by its use, but you pay dearly for it afterwards in an increase of the disorder. When the irritation is so great that the patient is quite worn out for want of rest, I have for years past recommended the introduction into the anus at bedtime of a bone plug, shaped like the nipple of an infant's feeding bottle, with a circular shield to prevent it from slipping into the bowel; the nipple should be about an inch and a half in length and as thick as the end of the forefinger. This is most efficient in preventing the nocturnal itching; a good night's rest is almost sure to result from its use, but I only advise it to be worn every other night. I presume that it benefits by exercising pressure upon the venous plexus and filaments of

nerves close to the anus. The idea of this plug occurred to me from several of my patients telling me that the only way they could obtain relief and sleep, when the itching was very bad, was by introducing the end of the forefinger into the anus and making pressure; this instantly arrested the irritation.

When pruritus is accompanied by internal hæmorrhoids, their removal almost always cures the itching; this was well shown in a very bad case operated upon by me in the practice of Mr Gervis of Haverstock Hill. The irritation had been present for a long while, and it had resisted all kinds of treatment, but yielded when the piles were got rid of.

Pruritus caused by a parasitic vegetable growth is readily cured by the application of sulphur ointment; or, what is much cleaner and equally efficacious, a lotion of sulphurous acid of the strength of one part to six of water.

I had some time ago a very obstinate case of anal irritation in an adult which was caused by ascarides. I really did not suspect this to be the origin of the malady, but I happened to see one of the worms just at the orifice; a brisk purge, and a few injections of a solution of iron freed the patient of the parasites and the pruritus also. It is always well to bear in mind the possibility of these causes of the disorder.

CHAPTER XV

FISSURE AND PAINFUL IRRITABLE ULCER OF THE RECTUM

This is an excessively painful and by no means uncommon affection; it is more frequently found in women than in men, although not rare in the latter. I have seen fissure in a baby in arms and in an old woman of eighty, in whom it was associated with an impaction. By far the most usual position of fissure is dorsal or nearly dorsal, although it may be perineal or lateral. It may be brought about by an injury or tearing of the delicate mucous membrane at the verge of the anus; so one cause is straining, another the passing of very dry, hard motions; sometimes it follows severe diarrhœa; it is frequently the sequel of a confinement, and the accompaniment, and occasional result of polypus. The origin of many fissures is syphilis.

As a rule fissure is supposed to be hæmorrhoids; patients tell you that they have a discharge of blood and matter, a swelling outside the bowel, and pain at stool, and they believe they have piles. Unfortunately, not infrequently the medical attendant is satisfied with the patient's diagnosis, and treats the case as one of external hæmorrhoids.

I should say, generally when a patient complains of of great pain on defæcation that it is not piles he is suffering from, and certainly not uncomplicated piles.

In fissure the pain on the bowels acting is more or less acute; some describe it as like tearing open a wound, and doubtless it is of a very excruciating character. I have known patients who for hours could not bear to stir from one position, the least movement causing an exacerbation of the pain. This agony induces the sufferer to postpone relieving the bowels as long as possible, the result being that the motion becomes desiccated and hardened, and inflicts more grievous pain when at last it has to be discharged. After action of the bowels the pain may in a short time entirely cease, and not return at all until another evacuation takes place, but often it continues very severe, of a burning character, or it is a dull, heavy pain, with throbbing which lasts for hours, sometimes even all day, so that the patient is obliged to lie down, and is utterly incapable of attending to any business. In some instances the pain does not set in until a quarter or half an hour after the bowels have acted.

In children and young persons unless a polypus complicates the fissure, I think it is almost always curable without operation. I have had many cases resembling the following.

A child, æt. 4½, admitted into St Mark's, September, 1867. For twelve months or more he has been subject to procidentia every time his bowels acted; he is usually rather constipated. About five or six months ago he began to suffer pain, which lasted for hours after the bowels had been relieved; this was so severe that he screamed and rolled about in his bed; he often passed a little blood; the pain was much aggravated when he was costive. On an injection being given, the rectum came down, and a very distinct fissure with a papillary growth at its commencement was seen. There was no polypus in the bowel; Ung. Zinci with extract of belladonna and opium to be used night and morning, and confection of senna with sulphur to be taken

to keep the bowels gently acting. This prescription afforded immediate relief; in three weeks the ulcer was healed and the child perfectly cured.

In children suffering from hereditary syphilis, numerous small cracks around 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.

Fissure, although really so simple a matter, and its cure generally so easy, wears out the patient's health and strength in a remarkable manner; the constant pain and irritation to the nervous system is more than most persons can bear; I have frequently seen women suffering from small anal ulcer, who thought they must have cancer in consequence of their extreme illness and pain. What under these circumstances is very extraordinary is the length of time people go on enduring the malady without having anything done for it. It is not an uncommon thing for one to see fissures of years' duration, especially in young women, who through delicacy of feeling often conceal rectal affections.

It is common for fissures to heal for a time and then break out again, so patients are apt to think a perfect cure will presently result, and defer proper treatment.

The usual position on the side is the best for making an examination. Let the patient raise the upper buttock with the hand, then with your forefinger and thumb gently open the anus, at the same moment telling the patient to strain down; you will then be able to see just within the orifice an elon-

gated, club-shaped ulcer; the floor of it may be very red and inflamed, or, if the ulcer is of long standing, of a greyish colour with the edges well defined and hard.

Frequently the site of the fissure is marked externally by a small clavate papilla or minute mucocutaneous polypoid growth; this must not be confounded with ordinary polypus, and it is not the *cause* of the fissure, but the *result* of the local irritation and inflammation which has been going on. Sometimes the situation of the fissure is indicated by an inflamed and swollen piece of skin, and the fissure in this case not infrequently ulcerates through the portion of integument, and forms a small but extremely painful fistula. In such a case very probably a small abscess had formed just above the external sphincter, and had burrowed under it, making in time a complete fistula. These small abscesses are very painful. It occurred to me to observe this in the wife of a medical man. When I first examined her I found she had well-marked fissure and an inflamed piece of skin close to the anus. I predicted that the ulceration would perforate this, and so it did, for in about ten days when I went to operate upon her, I found a small fistula had formed.

Occasionally, on proceeding to examine a patient the first thing you see is the small club-shaped papilla I have already mentioned, protruding from the anus; you may then be certain that an ulcer exists. I may here mention that when operating, this growth ought to be snipped off, or the case may not do well, as it falls down into the wound and retards or quite prevents healing.

Fissure is very commonly associated with uterine misplacement. I have stated that operations upon hæmorrhoids under similar conditions are not satisfactory; the same observation applies with quite as much truth to *fissure* and uterine disease. I have many times had reason to repent interfering with these cases. The successful treatment of the uterine disorder may be sufficient to cure the fissure (if no polypus exists), or at all events the ulcer will afterwards yield to local applications and general treatment. If the fissure should be benefited by operation, as long as the uterine malady exists, there will be a constant danger of a relapse taking place. The most common forms of uterine displacement in connection with fissure are, according to my experience, anteversion and retroversion, and associated with these I have frequently observed affections of the bladder, chronic cystitis, and spasmodic pains in micturition. When you find these three disorders united, depend upon it you will have a case that will call for all your skill and patience to bring to a successful issue.

Gelatinous and fibrous polypi are not at all uncommon complications of fissure. The polypus is usually situated at the upper or internal end of the fissure, but it may be on the opposite side of the rectum. Here is a case.

Mary G—, æt. 47, was admitted into St Mark's, April, 1871. She had a well-marked and very painful fissure near the anus. There was no polypus to be seen, but on passing my finger into the rectum I found a pedunculated fleshy polypus on the opposite side of the bowel to that on which the fissure was situated. I am quite confident that had I incised the fissure and left the polypus this patient would not have recovered.

If you do not remove a polypus at the time you divide

the ulcer failure is certain to result, as I have myself seen many times.

If the fissure is of recent origin it may often be cured without operation, especially if it be situated towards the perineum. In women this can almost certainly be accomplished. Of all the varieties of fissure the syphilitic is most amenable to general treatment; when of syphilitic origin they are often multiple. I have had three distinct well-marked fissures in one patient. I have seen in the practice of my colleagues at St Mark's many instances of multiple fissure. I may here mention that if you are obliged to operate upon a multiple fissure *one* incision through the sphincter will be sufficient.

Now as to the treatment. In all cases, rest in the recumbent position should, as much as possible, be adopted. Mild laxatives should be given, not to purge but to keep the bowels acting once daily; this may sometimes be effected by diet alone. The domestic remedy of figs soaked in sweet oil, or onions and milk at bedtime, may be sufficient. I often order a combination of equal parts of the confection of sulphur and confection of senna; small doses of sulphate of magnesia or potash, half a tumbler of Pullna or Friedrichshall water taken in the morning fasting, the compound liquorice powder of the German pharmacopœia, and the liquid extract of the Rhamnus frangulæ are great favourites of mine.

You must be prepared to alternate the medicines as one or other seems to lose its effect. All drastic purges should be avoided, but I do not object to small doses of the aqueous extract of aloes, especially when combined with nux vomica and iron. If the patient can so

manage as to get the bowels to act the last thing at night it is better than in the morning, as the rest is very beneficial and the pain does not continue so long when lying down. After the action ʒss of Liq. Opii sedativus may be injected with ℥ss of cold starch; this is especially valuable if the patient has the bowels relieved at bedtime. As an application I know nothing better than the following ointment: Hydrarg. Subchloridi gr. iv, Pulv. Opii gr. ij, Ext. Belladonnæ gr. ij, Unguent. Sambuci ʒj, to be applied frequently. I have effected many cures with this ointment alone. An occasional very *light* touch with the nitrate of silver (not to cauterise but to sheath the part with an albuminate of silver) is useful, and it relieves pain for some time. If there be very great spasm of the sphincter extract of belladonna may be thickly smeared around the anus over the muscle, and this I have at times found effective. If ointments do not agree with the sore, lotions may; Goullard water with opiates and sedatives may afford some temporary relief, but one must acknowledge that the best devised and most carefully carried out general treatment frequently fails, save in very favorable cases.

In my opinion, if the base of the ulcer be grey and hard, and if on passing the finger into the bowel you find the sphincter hypertrophic and spasmodically contracted, feeling as it often does like a strong india-rubber band with its upper edge sharply and hardly defined, nothing but the adoption of such means as will utterly and entirely prevent all action of the muscle, for a greater or less length of time, is likely to effect a cure of the fissure.

Some authors specify the time at which this disease

may be curable without operation, and say, "If it has existed more than three months the attempt is hopeless," but really the time is not of importance; the question is, what pathological changes have been brought about? I have cured fissure of months' standing when there was no great hypertrophy of the muscles. Here are some cases.

Mrs E—, æt. 24, was sent to me by Dr Simpson, of the Old Kent Road. Five months ago she was confined with her first child after a somewhat lingering labour. The first time the bowels acted she had pain; and ever since then she has never had an action without suffering. This has been gradually increasing and now her life is almost unendurable; the pain lasting for hours, and compelling her to lie down, so that she is quite unable to attend to her household duties. On examination a very characteristic dorsal fissure was seen; there was no polypus or piles. The rectum was generally healthy, and there was not very marked spasm or thickening of the sphincter. The bowels were confined. Ordered Magnes. Sulph. ʒj, Ferri Sulph. gr. j, Acid Sulph. dilut. ɱv, Inf. Quassiæ. ʒj, ter die; and to use the following ointment—Ung. Hydrarg, subchlor. ʒj, Ext. Opii, Ext. Belladonnæ, āā gr. iij; to be applied after action of the bowels and also at night. I touched the ulcer every other day with a solution of perchloride of mercury. In a fortnight the fissure was nearly healed, and she had scarcely any pain after defæcation. Soon after this I heard she had got quite well.

A city dignitary consulted me some time back, on the recommendation of Dr Sedgwick Saunders. His history was that for eighteen months or more he had suffered pain on defæcation; at times he was much better and only experienced uneasiness, and then again the pain returned as bad as ever. Homœopathy had been tried for some six or seven months, and he had derived benefit as far as his constipation was concerned, but the pain was no better. He had cultivated the habit of getting his bowels to act about six o'clock in the morning, so that afterwards he could return to bed and lie quiet for a couple of hours; he was then able to get up and come to town by train without suffering much; but if he had to travel soon after visiting the water-closet he was in pain all day. He was very careful in his diet, drank very little wine, and was accustomed to take oatmeal porridge, brown bread, fruits, and vegetables, which I dare say had more effect on his bowels than the globules of nux vomica to which he attributed his regularity.

As he laid very much stress upon the use of these globules, and was strongly of opinion that he would have no action without them, I did not oppose their continuance, knowing, as I well do, how much the belief that a certain drug is beneficial tends to make it so. On examining this patient I found a small circular perineal ulcer situated at the upper edge of the external sphincter; it was clean cut and inflamed. The rectum was otherwise healthy, and the sphincter was not much hypertrophied. Taking into consideration the length of time the ulcer had existed I advised incision, but that he would not listen to, so I prescribed my usual ointment, but was speedily obliged to leave out the extract of belladonna, as he was so sensitive to the action of this drug as to get dry mouth and dilated pupils with affected vision in twenty-four hours after applying it. After three weeks I found the ulcer was not any better, although I had varied my treatment, touched it with nitrate of silver, perchloride of mercury, &c.; he had also used lotions of the tartrate and persulphate of iron. I had observed that there was one minute spot most excessively tender, much more so than the rest of the sore. There, no doubt, was an exposed nerve, so I took a hint from the late Mr Hilton's work on 'Rest and Pain,' and applied once, some acid nitrate of mercury. From that day the ulcer rapidly healed and soon this gentleman got perfectly well; I know that he continues so to this day.

I may here remark that I have several times had a similar success from the fuming nitric acid, but I prefer the acid nitrate of mercury. I have had very good results from a suppository of oxide of mercury.

A lad, æt. 19, came to me at St Mark's with double fissure: both the ulcers were very well marked, and there was one on either side of the anus. He suffered the greatest pain for hours after defæcation. On examining him I found that he had a syphilitic rash—squamous and coppery; his tonsils were ulcerated, and he had also enlarged and hardened glands in his groin. He admitted that he had suffered from a sore on his penis, and had been treated for it at St Bartholomew's Hospital: he did not know whether he had taken mercury or not. The sore on the penis had been well about five months, and the pain on going to stool had existed for four months. The rectum was healthy, and there were no mucous tubercles. I put him on a course of bichloride of mercury and tonics as he was much out of health; he took the hospital confection to keep his bowels gently acting, and used strong calomel ointment with powdered opium; after three weeks' treatment the fissures had quite healed, so then he ceased to attend, although his syphilitic symptoms had not disappeared.

I have headed this chapter "Fissure and painful irritable ulcer" because the symptoms and treatment do not differ whatever form the ulcer assumes, whether it be elongated and club-shaped, oval, or circular, but as a rule the small circular ulcer is situated higher up the bowel than fissures are, which generally extend to the junction of the mucous membrane with the skin; the ulcer being more commonly found above or about the lower edge of the internal sphincter ani. I think also that in the circular ulcer there is less severe pain at the moment of defæcation, but it comes on from five minutes to a quarter or half an hour after that act, and then is quite as intolerable as that resulting from the fissure. These minute ulcers are more difficult to find than the fissures, as they often cannot be seen without the use of a speculum, or getting the patients to strain violently, which they will not do for fear of exciting pain; in fact, they generally draw up the anus as much as they can when you are examining them. An accustomed finger detects these ulcers directly; they feel much like the internal aperture of a fistula, but the edges are harder, and therefore more defined, and there is no elevation above the surface of the surrounding mucous membrane, as is frequently the case in fistula. These ulcers often burrow, and then they become the internal openings of blind internal fistulæ.

There has been a controversy at various times as to the depth of incision necessary to cure a fissure, some advocating a slight cut and others a free one. There is no doubt in some cases a very superficial incision through the base of the fissure, so as to divide the fibres of the muscles immediately beneath the ulcer, or even to cut through an *inflamed filament of nerve*, may

be enough; but, on the other hand, I have frequently seen slight incisions fail, and I am confident that a tolerably free one, sufficient to secure the relaxation of the sphincter, and put the parts entirely at rest, is by far the safer plan; and this, indeed, is the physiological reason of the success attending the operation.

I do not mean by this that you need cut right through both sphincters into the cellular space beneath, as the older surgeons used to do, but I am sure that a fairly free incision heals quite as quickly as a small one, and that it is much better to cut rather too deeply than too superficially.

Those who are in favour of a slight cut say that incontinence of fæces may be brought about by too free an incision through the muscles. That may be when the cut is not properly made, *i. e.* when the muscles are not cut at right angles to the direction of their fibres. An incision at right angles will join so as to leave a perfect narrow scar, but an oblique incision leaves a very weak, wide scar. I am quite certain that both the internal and external sphincter muscles (on one side only) may be divided entirely in a healthy person, without any danger of a weak bowel following.

You may be confident that your patient will not readily pardon your not curing him at the first operation, and will be very disinclined to submit to a second incision should the first have failed. Most likely he will take himself out of your hands, and seek other advice; it has occurred to me to have to operate upon patients, both hospital and private, where eminent surgeons had failed to effect a cure, and I have found that failure had resulted from one or two causes, either

the too sparing use of the knife, or the overlooking of a polypus.

When operating, if not very *au fait* at rectal surgery, I should advise you to introduce a speculum; you then see exactly where your knife should go, and also the parts are rendered tense, which facilitates their division; the incision should commence a little above the upper end of the fissure, and terminate a little beyond the outer end, so that the whole sore is cut through; as a general rule the depth of incision should not be less than a quarter of an inch. If the outer end of the fissure be marked by a swollen inflamed piece of skin, it is better to remove that with a pair of scissors, by this the healing process is greatly expedited; the small *polypoid* growth also, so frequently found in fissure, should at the same time be snipped off. Please to note that I am not recommending the cutting off of true rectal *polypi*.

It has been suggested that a curved bistoury may be passed beneath the ulcer, and the cut made from beneath towards the bowel. I do not see any advantage in this mode of operating; for my own part, I always insert my forefinger into the bowel, feel the situation of the fissure, pass upon my finger a straight knife with a rounded point, then turn the edge to the base of the ulcer and make the incision; or, the knife-blade can be laid flat upon the forefinger and both introduced together into the bowel, and the cut then made; this is a good plan where there is much spasm of the sphincter. When the fissure is quite dorsal, the cut should not be made directly through it, but rather laterally, by which means you are certain of completely dividing the fibres of the muscle, and the wound will

heal more readily. A small piece of cotton wool may be placed in the wound, and allowed to remain for twenty-four or forty-eight hours. It is well to keep the bowels confined for two or three days.

Usually there is no occasion for the patient to keep in bed, but it is advisable that much exercise or standing about should be interdicted; a few days on the sofa is, in simple cases, all that is required. The reverse of all this is absolutely necessary when there is any uterine complication; the patient here must be kept entirely at rest and lying down until the wound has soundly healed, for, most assuredly, if she gets about too soon either the wound will not close, or worse than that, unhealthy ulceration will ensue. I have seen many cases showing the good policy of long-continued rest, and numbers more where bad results have followed a speedy resumption of ordinary duties; on this point I could relate numerous illustrative cases, but one shall suffice.

Ada T— was admitted into St Mark's Hospital August, 1866; she was twenty-four years of age, was married, and had five children; she was in the hospital three months ago, and was operated upon by Mr Lane for fissure; she left not quite well. It was noted on her card that she suffered from retroversion, and had an enlarged uterus. On examining her, on her re-admission, rather extensive, but superficial ulceration was found to have taken place since her going out. The ulceration extended above the upper edge of the internal sphincter. She had a good deal of pain and frequent harassing diarrhœa. There was no history or sign of syphilis. After three months' treatment by injections, sedative and astringent, and the internal administration of iodide of potassium and tonics, she was discharged cured. The uterus was kept in its place by means of a Hodge's pessary.

These fissures, or irritable ulcers, not very uncommonly give rise to a train of nervous and hypochondriacal sensations, which continue even after the ulcer

itself has healed. I have seen examples of this in both hospital and private practice, and both in men and women.

An elderly maiden lady has been seen by me at various times for the last four or five years, her history being that, fully five years back, she had a small painful ulcer situated over the upper part of the internal sphincter muscle, which was much hypertrophied and spasmodically contracted. A limited division of the muscle failed to effect a cure, and after six months' trial to get the ulcer to heal I again operated, this time assisted by my friend Dr Crosby; I made a very free incision through both muscles, and after that there was no difficulty, the wound healed thoroughly and soundly; but ever since then, although there is not the slightest lesion of the bowel—I have often examined her with both speculum and endoscope in the most thorough manner to be sure of that fact; she frequently, indeed almost constantly, complains of her old pain. There is a burning, uneasy sensation in the bowel, but no local tenderness to touch. She cannot walk about much, nor sit long in one position, nor ride far in any vehicle without suffering. She is stout, looks well, and her general health has not suffered. There is no discharge of any kind, mucous, purulent, or bloody; and, as a rule, she does not have pain on defæcation. There is no abnormal redness or heat of the bowel, although she always has the sensation of great heat in the part. She has no uterine affection (two eminent obstetric physicians have examined her and say so), and she has ceased menstruating some years.

Now, what is the matter with this patient? Some may call it neuralgia or hysteria; but it has resisted all the usual remedies prescribed for these complaints, including hypodermic injections of morphia and quinine; in fact, she has taken all kinds of remedies prescribed by other medical men as well as myself. I have two ideas as to the cause of suffering in this case:—The first is, that it is possible that some filament of nerve is included in the cicatrix of the wound, and thus irritation or inflammation is kept up, as one sees occasionally after amputations of the extremities; the second idea is, that her mind has been dwelling for so long a time on the state of her bowel that, although now there is nothing

organically the matter with her, she retains the power by mental concentration of reproducing the sensation of pain in the old spot. This may not be the correct explanation, but there is some evidence, I think, tending to show that it possibly is so; for instance, the pain is not always consistent in its behaviour; the bowels act generally without pain; the pain does not come on directly after defæcation, but some hours after; sometimes the pain sets in before the action, and is removed or relieved by the bowel being emptied (a condition of things quite inconsistent with true ulcer or fissure). Then, again, when the patient is occupied pleasantly or intently she has no pain, but it can be produced immediately by excitement of a disagreeable kind; it is also uncertain in its coming and going, as well as in its character; sometimes it is smarting, then burning, as if the rectum was very hot; at another time pulsation is the chief annoyance, or the bowel may feel quite plugged up as if the anus was swollen; and then suddenly the pain is lancinating, causing her to call out: all this leads me to think that the pain is mental.

Whatever may be the explanation, the fact is clear that here is a person who has no discoverable lesion of structure in a part, constantly suffering almost all the pain and misery which was formerly induced by a marked organic disease. This patient has written to me stating that she is now quite well, although nothing special has been done for her. I have not related this case because it is unique; I have seen others precisely similar both in men and women. I know for years I was tormented at the hospital by a man, perfectly healthy and strong looking, who used constantly to attend the out-patient room complaining of a dreadful

burning and painful sensation in the rectum a little way from the anus; he said it kept him awake at night, haunted him all day, was never out of his thoughts, and made his life utterly miserable. I examined him many times and could never detect anything abnormal (he had been operated upon for fissure years before I saw him by the late Mr Salmon); there was no redness, no discharge, and the thermometer showed no excessive heat; in fact there was nothing to see or feel. No remedy did him any permanent good, but he was always a little benefited by a fresh one. He used to leave me every now and again and go to one of my colleagues, and glad I was to be quit of him, but in a few months he was sure to come back, and not a whit better for what had been done for him. I called the malady hypochondriasis, but I suppose that was only expressing by a long word that I did not understand what was the matter with him. I can emphatically say that such patients are about the most unsatisfactory you can have.

Why are ulcers near the anus so very painful, while those situated higher up the bowel are not generally so? There are two reasons which suggest themselves at once:—1st, the great mobility of the external sphincter; 2nd, the supply of nerves. The lower part of the rectum and the anus is very fully supplied by branches from the posterior and anterior sacral plexus, and more especially from the pudic. These nerves send numerous branches between the fibres of the sphincters and immediately beneath the mucous membrane; thus very superficial ulceration exposes the nerve, and the slightest touch, contraction, or stretching of the sphincter causes intense pain.

If you carefully examine one of these ulcers you will usually find one or more spots that are most exquisitely tender; this is where the nerve is exposed. The lightest drawing of the knife across the ulcer, if done at the right point, will be sufficient to divide this nerve, and to induce cessation of the pain for some little time; but the muscle beneath being irritated and hypertrophied prevents by its movements the ulcer from healing, and very soon the pain will be re-established; hence the necessity in all but the slighest cases for the division of the sphincter.

When the muscle is cut the divided fibres retract, and they do not unite so quickly as the ulcer heals; the result is, the muscle being set quite at rest, soon loses its hypertrophy and irritability. I have oftened noticed, after a fissure has been cured, how much reduced in size and thickness both the sphincters have become. The cause of failure after imperfect division of the muscle is, that entire quiet is not obtained; the undivided fibres, though paralysed for a time, soon recover themselves, and the old contraction is resumed before the ulcer has had time to heal, so that very speedily it re-assumes its former character.

A great many apparently anomalous symptoms are produced by small painful ulcers of the rectum—retention of urine, pain in the back, pain and numbness down the back of the legs, leading to unfounded fears of paralysis, may be mentioned as not uncommon. When in a fissure the nerves are exposed the pain is most acute at the time of an evacuation; when they are not so exposed the pain generally sets in shortly after the action in consequence of the irritation to the sphincter. In many of these ulcers an examination with a magni-

fying glass has shown me the fibres of the external sphincter laid quite bare. Patients sometimes tell you that the first time they suffered pain was after a very hard motion, when they felt something give way with a crack.

Dr Dolbeau, of Paris, considers the essence of this disorder to be neuralgic, and defines "fissure of the anus as being a spasmodic neuralgia of the anus with or without fissure." He states that he has seen cases where all the intense pain and agony of fissure was present, but there has been no structural lesion whatever. For my own part I cannot wholly subscribe to this view; out of the thousands of patients who have been under my care suffering from rectal diseases, I have never yet met with a case in which the persistent, regularly repeated, intense pain commencing on passing or immediately after the passing a motion, which distinguishes fissure, was not associated with an anatomical lesion, though that lesion might be very slight and difficult to discover.

I have seen a good many nervous patients who complained of severe rectal or anal pains, but still wanting in essential characteristics the pain of fissure. I have also observed cases of spasmodic contraction of the sphincter inducing obstinate constipation, and attended with pain, but not at all strongly resembling the fissural paroxysm; often a sudden spasmodic acute stab seems to run up the bowel just before action, but when the fæcal mass is passed a feeling of relief and comfort is experienced. I do not say that neuralgia may not coexist with fissure, and modify or aggravate the suffering, but I think if it was the essential cause of the pain I should be justified in expecting that it

would occasionally yield to the internal exhibition of anti-neuralgic remedies, a result which certainly is not within the range of my knowledge. I am inclined, but doubtingly, to express the opinion that the one essential of the malady in its severest form is an exposed nerve, and that the spasmodic contraction of the sphincter excited by reflex irritation occasions the peculiar character of the pain.

Dr Dolbeau is strongly in favour of forced dilatation of the sphincter, originated by Recamier, in the treatment of anal fissure, in fact he scarcely admits of any other method. He says :

"The cure is thus complete after the operation, but it is not a lasting one, relapses often occurring ; this is another argument in favour of the neuralgic nature of the complaint."

A post-mortem examination was made in Paris on a girl, who died of cholera within a few hours of having forcible dilatation made for the cure of fissure. The surgeon—whose name I have forgotten—states that none of the fibres of the sphincter muscles were in the least degree torn, though the mucous membrane was slightly so.

Although I had in several cases employed Dr Dolbeau's method, I found, as he had done, relapses were not uncommon, and I further looked upon "forcible" dilatation as a cruel operation. My first experience of this treatment was gained in Paris, and I will describe literally what I saw, and it was so repugnant to my feelings that I was greatly disinclined to it. A male patient was brought into the theatre suffering from fissure of the anus. The surgeon introduced one finger into the anus and then another, until he gradually, but

with much pressure, got the whole hand into the rectum; he then made a fist of his hand and forcibly drew it out. The cries of the patient were really heart-rending, and six or seven assistants were employed in holding him down.

Now, during the past four years, I have repeatedly dilated the sphincter for the cure of fissure, and as I do it, the operation is not violent and the result is on the whole very satisfactory. The patient being thoroughly placed under the influence of an anæsthetic, I introduce my two thumbs, one after the other, taking care to press the ball of my thumb over the fissure and the other directly opposite it; this prevents the fissure from being torn through and the mucous membrane stripped off. I now gradually separate my thumbs; then I repeat the stretching in the opposite direction, *i. e.* at right angles to my first; then in other divers directions, until I have gone round the anus. I then by considerable pressure pulp the sphincter muscles all round, pulling apart the anus with four fingers, two on each side; by thus gently pressing and pulling, the sphincters completely give way, and the muscle, previously hard, feels like a well-beaten beef steak or even putty. This will occupy at least five or six minutes to do thoroughly; there is scarcely more than a drop or two of blood seen, but you can see that the anus is bruised, and for a few days extravasation is noticed, the part gradually undergoing the changes of colour usually observed in any bruise. This operation is perfectly safe and almost painless. I place in the rectum a suppository of half a grain of morphia and apply cold. I am bound to say that since I have dilated as above described, I have never failed to cure a patient.

I saw, with Dr Robert Mitchell, of Lewisham, a gentleman of more than eighty, who suffered greatly from a fissure of long standing, in conjunction with some hæmorrhoids. He was too old to allow me to press a cutting operation, but dilatation perfectly cured him in eight days, and he has continued in comfort until now.

I could relate a number of cases in which dilatation has cured fissure and painful ulcer, as well as obstinate constipation in such cases I often employ it. I can remember that the late Mr Salmon was in the habit of treating constipation by passing bougies, gradually increasing the size, until a very large one could be introduced; I have reason to know he was successful. He used the same treatment as a preliminary step to the operation on piles, and there again I am sure he gained much advantage in lessening the pain after the operation as I have said dilatation does. There are still cases of fissure and ulcer in which I prefer the knife, and shall continue to use it; but I am bound to say my confidence in proper dilatation is greatly increased, and I am sure, when properly done, it is very successful, though occasional relapses may occur. Some years ago I frequently divided the sphincter subcutaneously for the cure of fissure, but I have discarded it as possessing no advantages and not being certain in its result.

CHAPTER XVI

IMPACTION OF FÆCES

The outcome of a long constipation may be a collection of clayey fæces formed in the cæcum or in any part of the colon, but it is usually called impaction when the accumulation takes place in the pouch of the rectum immediately above the internal sphincter muscle. This is its most frequent situation, and here a very large deposit is often found more or less globular in shape. It occurs in females more commonly than in males : old women, and women shortly after their confinements, being especially liable to it. In aged people very often one of the first indications of failing nerve power is shown by loss or diminution of the contractile force of the colon and consequent inaction of the bowels, leading to impaction.

I have seen some cases of impaction in hysterical young girls and in middle aged females. I have also met with it in elderly men, but I never had a well-marked example of this disorder until recently in a young man, but I have found it occur more than once in children ; I saw a little boy, only three years of age, who had a veritable impaction which gave a good deal of trouble, but when it was removed the bowel soon regained its tone, and regular action was afterwards easily kept up.

The cause of the accumulation I believe nearly always to be, primarily, a loss of power of the muscular coat of the rectum. This loss of power may have been produced by the pressure of a child's head during a long protracted labour or by over distension of the bowel through habitual neglect of the calls of nature, in which case the collection may be the result of months' costiveness, and the rectum much resembles in its condition a bladder paralysed from retention of urine.

Spasm of the sphincter has been said to be a cause of impaction, but I have more often thought the reverse was the case, and the impaction the cause of the spasm. I must, however, acknowledge that spasm is often the cause of the constipation which is the forerunner of impaction. In impaction spasm of the sphincter always exists ; in some instances to such a degree that when the patient strained I have observed the anus protruded like a nipple, and an injection returned in a fine stream as if coming out of a squirt. I have certainly met with cases of idiopathic spasm of the sphincter usually in elderly, nervous, single women, and though no impaction was present, costiveness was.

The symptoms of impaction are not uncommonly very obscure, and the malady may be mistaken for something else. I was once called to see a lady labouring under impaction, and found that an eminent physician had recently declared her to be suffering from neuralgia of the bowel and had ordered her quinine and steel, and I have heard of another case which was treated as gout in the rectum. I have met with several patients who were supposed to be the subjects of malignant disease of the cæcum or sigmoid flexure from

the fact of there being a tumour present, and from the patient's aspect, which is frequently very suggestive of cancer. I had a very marked case of impaction in a girl thirteen years of age, which was supposed to be enlarged mesenteric glands, and was being treated with steel and cod-liver oil. I attended a gentleman who was believed by his physician to have incipient disease of the brain, so much nervousness and hypochondriasis resulted from a very loaded colon and impacted rectum. I had a case in a young lady which was said, by more than one medical man, to be phthisis, constant cough being present, with hectic at night, and much emaciation. And lastly a very common but sad error is committed; these patients are treated for diarrhœa with tenesmus, as a considerable fluid discharge from the bowel is not at all incompatible with great retention of solid fæces.

A very interesting case was sent me by Dr Frodsham. The patient was an elderly person from the country, who was placed under Dr Frodsham's care. She had been for a long time ill with severe pains in the bowels of a colicky character, not especially restricted to one part of the abdomen, which was much swollen. No tumour could be detected. She was subject to hiccough and flatulence. This was attended with dyspnœa and palpitation of the heart. She had on several occasions fainted away, and fears were entertained that the heart was not sound. Always or nearly so in conjunction with the abdominal pain she had diarrhœa, copious coloured watery stools; for the correction of this, she had been prescribed opium with carminatives, a few doses generally gave her much relief. Her appetite was bad, and she had frequent retching and sometimes vomiting. Dr Frodsham not being satisfied with the case sent her to me. She was fifty years of age, not ill-nourished, her face wore an anxious expression, and the complexion was muddy. Her general symptoms had existed over two years. The tongue was quite clean and too red. On examination the heart and lungs were found sound. The abdomen was much distended and the diaphragm forced upwards, causing dyspnœa when she lie down. The abdomen was globular, and there was no particular

prominence in any one part. The skin was not shiny; on manipulation the abdomen felt doughy; it was also tender so that she could not bear much kneading, but after a little pressure the transverse colon started into action, and it was felt to be very large. A flexible tube was easily passed eighteen inches, and on withdrawal, it was in parts smeared with fæces; on introducing the finger into the rectum the latter was found filled with clayey fæces. The diagnosis was great fæcal accumulation and slight impaction. I ordered her a pill of podophyllin, calomel, belladonna, and pil. colocynth co. three times in the day, and, every morning, an injection of a pint and a half of thin gruel with two ounces of fresh ox gall in it. On the third morning of this treatment she passed an enormous motion, more than enough to fill an ordinary chamber utensil. The same pills and enema were continued now every day followed by several enormous evacuations. I really may say that the quantity of fæcal matter she parted with would to most persons appear incredible. After ten days the medicine was changed to a combination of laxatives and tonics, which she continued for some time, but at the termination of three weeks all her discomforts were gone and she was quite slender as regards the abdomen.

In the history of these cases it is not rare to find that severe pains have been experienced in the right lumbar and left inguinal regions; this points to the fact that the cæcum has been the seat of obstruction and distension, and that when this was removed the fæces again lodged in the rectal pouch. The symptoms of impaction might be expected to be generally those of obstruction, and to resemble in many respects those of stricture of the rectum, and sometimes this is so, but the absence of any jelly-like or coffee-ground discharge is an important point to be noticed in the diagnosis. The patient often really complains of a tendency to diarrhœa, liquid motion being frequently passed especially after an aperient, but without any sense of relief, and on assuming the erect position, straining, severe, continuous and irresistible, takes place. On lying down this generally gradually passes off.

Dyspepsia, irritability of temper, nervousness and despondency, the patient supposing herself to be suffering from an incurable malady, a very muddy-yellow skin suggestive of malignant disease, morning vomiting, and a loathing of all food as soon as a few mouthfuls have been taken, excessive and very painful thirst, are among the common symptoms of this disorder. A peculiar ringing, barking cough, particularly in women, and also night sweats, are not uncommon. In both men and women I have seen very obstinate retention of urine caused by impaction. All these symptoms may continue more or less urgent for months, and aperients and injections may be given without affording more than temporary relief.

When examining a patient, if you make careful palpation over the abdomen, tumours may be felt in the cæcum, the transverse colon, or the sigmoid flexure; under any circumstances, in the majority of cases, if you look at the anus you will see that it is nipple-shaped, and if you feel around the anus you will find the sphincter muscle tightly contracted and almost as hard as a piece of wood. It is only with difficulty that you can introduce your finger into the bowel, and having done so, you will find a ball of hardened clayey fæces filling up the rectal pouch. This ball I have seen almost as large as a fœtal head, and quite movable, so as to admit of liquid or thin motion passing round by the sides of it, thus giving rise to the impression that diarrhœa rather than constipation existed. So deceptive is the feeling this mass gives to the finger, that I have more than once thought I must be touching a tumour; and I have been called in consultation several times by medical men, who had discovered the impac-

tion, but could not believe that what they felt was only a collection of fæces.

In bad cases you must commence the treatmeut of this malady by thoroughly breaking up the ball of fæces.

The best mode of accomplishing this is first to put the patient under an anæsthetic and then forcibly but slowly dilate the sphincters by introducing both your forefingers well oiled, and separating them towards the coccyx and perineum, then again to the tuberosities of the ischia. You need not tear the mucous membrane, but you so stretch the muscles as to paralyse them for a time; this done you can get at the interior of the rectum without any difficulty, and break up the mass with your finger, or a lithotomy scoop, or the handle of an old-fashioned silver spoon. The spasm of the sphincters being thus overcome, you can do a great deal at one sitting, in fact quite empty the rectum.

After you have thoroughly broken up the impacted mass you may administer injections of soap and water and oil, and in this way you will often get rid of enormous quantities of fæces. When the ball occupying the rectal pouch is cleared away, other masses generally come down, and I have seen as much as two or three chamber utensils passed at one operation.

I have found, in several instances, the rectum so much dilated that the upper part of the bowel opened into the pouch like a pipe into a bladder.

It is often a considerable time before the rectum recovers its power after its great distension, and, therefore, you must take care that no re-accumulation takes place. Injections of cold water, kneading the abdomen, and the exhibition of the compound decoction

of aloes with nux vomica, will be found useful. As soon as the bowel is thoroughly cleared out I am in the habit of prescribing the following pill, which is very effective in restoring power to the colon and rectum, and thus inducing a regular action of the bowels:— Ferri Sulph. Exsicc. gr. $\frac{1}{4}$, Quinæ Sulph. gr. j, Extracti Nucis Vomicæ gr. $\frac{1}{4}$, Ext. Aloes aq. gr. j, Extr. Taraxaci q. s. ut fiat pil., take one three times in the day after meals. Faradisation is most advantageous in these cases.

Persons of sedentary habits are very liable to these attacks, so exercise in the open air must be taken daily.

The diet should not be too liberal. An elderly lady was a patient of mine on three occasions with impaction and loaded cæcum, and I am sure it was because she was a very hearty eater and never took any exercise. I could neither persuade her to walk more nor to eat less.

Impactions have, as I have mentioned, been often mistaken for malignant abdominal tumours, but the diagnosis is usually not difficult if observations be carefully made. There are two points of distinction which may always be noticed: 1st. An examination from time to time will show that the tumour differs in size and shape—this the patient will often be the first to remark: 2nd. A very careful manipulation will detect that the tumour is irregularly soft and has a decidedly doughy feeling. When the tumour is in the sigmoid flexure or rectum the introduction of the finger will at once clear up the doubt, if there be any.

Concretions in the bowel are rarer than impactions,

and they differ from these in that they are often formed round some foreign body and are usually cylindrical in shape. Concretions consist of animal and vegetable fibres matted together around a nucleus which may vary according to circumstances. In one case a quantity of human hair formed the core; the patient had been in a lunatic asylum, and in a fit of mania had swallowed the hair. She had suffered from attacks of intestinal obstruction for months, and she always said there was something in the bowel which would not pass through the anus. She was brought to me at St Mark's Hospital. I forcibly dilated her sphincter and with a lithotomy scoop and my finger succeeded, after some trouble, in removing a conical-shaped mass more than six inches in length by two inches and a quarter in diameter; it was covered with pus and awfully fetid. On cutting through it, as I have mentioned, the centre was found to consist of human hair.

Another patient of mine, an elderly gentleman, had an obstruction of the rectum which I thought was an ordinary impaction, but it was not globular in form, and when I tried to break it up I could not do so, as it slipped away and was too tenacious. I was, after dilating the sphincters, enabled to get hold of it with a pair of lithotomy forceps and gradually draw it out. The nucleus was a large biliary calculus, and around it were vegetable and animal fibres and dried fæces, the whole was covered by a thick coating of mucus and pus. Eighteen months before, he had suffered an attack of gall stone, and no doubt this calculus had then lodged in the bowel, probably in one of the sacculi of the colon.

I have already related another case of this kind.

One more case I will record, as it is peculiar ; here a sovereign formed the nucleus. The patient, a woman, came to St Mark's Hospital suffering from stricture of the rectum ; when I dilated the stricture I found a large mass above it. Purgatives and enemata not effecting its removal, I eventually brought it down with a scoop and my finger ; it was cylindrical in form. On tearing it up to examine its structure I found in its centre the coin I have mentioned. Quite fifteen months before, the woman had swallowed a sovereign, and she had sought for it in her motions, but failed to find it ; she had not any idea that it had not passed. I think it very likely that at that time she had incipient stricture of the rectum, and consequently the piece of money did not escape from the bowel.

I will not occupy more space on this subject ; the cases are somewhat rare and the treatment simple enough. When the mass comes down near the anus it must be removed bodily ; you will find it so tenacious that you cannot break it up like an ordinary impaction. Unless you dilate the sphincter you will have very great difficulty in extracting these concretions ; in fact, it is almost impossible to do so.

It is very curious how, sometimes, small substances fail to traverse the alimentary canal safely, and how, at other times, very large bodies pass without producing any severe or dangerous symptoms. There are cases related by Sir James Paget, Mr Henry Smith, and others, where a considerable portion of a set of false teeth mounted in gold was swallowed and not arrested anywhere in the intestines.

There is one thing we should recollect when such a case comes before us—that is, never give a purge. You

may tell your patient to eat very freely of solid material, such as suet pudding, bread, and the like, so as to form full-sized cohesive motions.

These cases must not teach us to lightly estimate the danger of swallowing foreign bodies; many cases are on record where such a simple matter as a cherry stone has caused death, by setting up ulceration and perforation of the bowel, usually the cæcum or vermiform appendix.

I saw some time back a case with Dr Nash and Mr Clover of a fine young lad who lost his life from peritonitis caused by perforation of the appendix vermiformis. The foreign body appeared to be a small portion of wood, around which fæcal matter had deposited, augmenting its size to about that of a small date stone, but pointed at each end. The symptoms were at first not very pronounced, but the fever was soon great and accompanied by much delirium. No operative interference was resorted to, the diagnosis being that the obstruction to action of the bowels was caused by peritonitis, the result of probable perforation of the cæcum or its appendix. The post mortem verified the diagnosis.

CHAPTER XVII

ULCERATION AND STRICTURE OF THE RECTUM

Ulceration extending above the internal sphincter, and frequently situated entirely above that muscle, is not so very uncommon a disease; it inflicts great misery upon the patient, and if neglected, leads to conditions quite incurable, and the patient dies of exhaustion unless extraordinary means are resorted to. In the earlier stages of the malady careful, rational, and prolonged treatment is often successful, and the patient is restored to health; I wish I could say the same of the severe and long-standing cases. Ulceration of the rectum can only be mistaken for malignant disease; but when the symptoms are carefully considered, and the finger is well educated, there can but very occasionally be any error in diagnosis committed. As the earlier manifestations are fairly amenable to treatment, it is of the utmost importance that the disease should be recognised early. Unfortunately, it rarely is so; the symptoms are obscure and insidious, the suffering at first but slight, and so the patient deceives, not only himself, but his medical attendants, by the little heed he gives to the complaint.

In the majority of these cases the earliest symptom is morning diarrhœa, and that of a peculiar character,

in my opinion quite indicative of the disease, and can only be confounded with cancer. The patient will tell you that the instant he gets out of bed he feels a most urgent desire to go to stool; he does so, but the result is not satisfactory. What he passes is generally wind, a little loose motion, and some discharge resembling "coffee grounds" both in colour and consistency; occasionally the discharge is like the "white of an unboiled egg" or "a jelly-fish;" more rarely there is matter. The patient in all probability has tenesmus, and does not feel relieved; there is something of a burning and uncomfortable sensation, but not actual pain; before he is dressed very likely he has again to seek the closet; this time he passes more motion, often lumpy, and occasionally smeared with blood. It also may happen that after breakfast, taking hot tea or coffee, the bowels will again act; after this he feels all right, and goes about his business for the rest of the day, only, perhaps, being occasionally reminded by a disagreeable sensation that he has something wrong with his bowel. Not by any means always, but at times, the morning diarrhœa is attended with griping pain across the lower part of the abdomen and great flatulent distension. When a medical man is consulted the case is, in all probability, and quite excusably, considered one of diarrhœa of a dysenteric character, and treated with some stomachic and opiate mixture, which affords temporary relief. After this condition has lasted for some months, more or less, as influenced by the seat of the ulceration and the rapidity of its extension, the patient begins to have more burning pain after an evacuation, there is also greater straining and an increase in the quantity

of discharge from the bowel; there is now not so much jelly-like matter, but more pus—more of the coffee-ground discharge, and blood. The pain suffered is not very acute, but very wearying; described as like a dull toothache, and it is induced now by much standing about or walking. At this stage of the complaint the diarrhœa comes on in the evening as well as the morning, and the patient's health begins to give way, only triflingly so, perhaps, but he is dyspeptic, loses his appetite, and has pain in the rectum during the night, which disturbs his rest; he also has wandering and apparently anomalous pains in the back, hips, down the leg, and sometimes in the penis. There is yet another symptom present in the later stages, marking the existence of some slight contraction of the bowel, viz. alternating attacks of diarrhœa and constipation, and during the attacks of diarrhœa the patient passes a very large quantity of fæces. These seizures are attended with severe colicky pains in the abdomen, faintness, and not unfrequently sickness.

As the ulceration extends, attempts at healing take place; these result in infiltration and thickening of the submucous and muscular tissues, and consequently more contraction of the bowel, so that real stricture of various forms supervenes. Coincident with all this there results a gradual loss of the contractile power of the rectum, and almost complete immobility, so that the lower part of the gut is converted into a passive tube, through which the fæces, if fluid, trickle; but if solid, they stick fast until pushed through by fresh formations above them. Invariably also there is loss of power in the sphincters. When diarrhœa is present the patient has little or no control over his motions.

Usually by this time abscesses have formed, or are in process of formation, and these breaking soon become fistulæ. I have seen persons with as many as eight external orifices, some situated three inches or more from the anus.

On examining these cases of ulceration of the rectum various conditions may be noticed according to the stage to which the disease may have advanced. In the earlier period you may often feel an ulcer situated dorsally about one and a half inches from the anus, oval in form, perhaps an inch long by half an inch wide, surrounded by a raised and sometimes hard edge; there is acute pain caused on touching it, and it may be readily made to bleed. With a speculum you can distinctly see the ulcer, the edges well marked, the base greyish or very red and inflamed looking, the surrounding mucous membrane being probably healthy; in the neighbourhood of the ulcer may often be felt some lumps, which are either gumma or enlarged rectal glands. This is the stage in which the disease is often curable, as I shall show when speaking of treatment. Later in the progress of the malady, you will observe deep ulcers, with great thickening of the mucous membrane, often also roughening to a considerable extent, as though the mucous membrane had been stripped off. At this stage you generally have, outside the anus, swollen and tender flaps of skin, shiny, and covered with an ichorous discharge; these flaps are commonly club-shaped, and are met with also in malignant disease; but in the early development of the disease *no ulceration is found near the anus nor at the aperture*. It is in private practice that we have the best opportunity of seeing these cases early, and I most

positively repeat that the large majority do not commence by any manifestation at the anus, such as growths or sores—occasionally a fissure may be the first lesion, and the ulceration extend from the wound made in attempting to cure it—this is, however, the exception to the rule, and I will further on relate some cases to show that what I have stated is correct. So definite is this external appearance in long-standing disease that one glance is sufficient to enable an expert to predicate the existence of either cancer or severe ulceration; these external enlargements are the result of the ulceration going on in the bowel, and the irritation caused by almost constant discharge. The ulceration may be confined to a part of the circumference of the bowel, or it may extend all round, and for some distance, but not usually for more than four inches up the rectum. It also probably will have travelled downwards close to the anus, and then the pain is sure to be very severe, because the part is more sensitive and more exposed to external influences and accidents.

When you have arrived at this condition of course stricture and most probably fistulæ will be present, as I have already mentioned; and possibly, but not frequently, perforation into the bladder, into the vagina, or the peritoneal cavity, may occur. The state of the patient is now most lamentable; his or her aspect resembles that of a sufferer from malignant disease, and no remedy short of lumbar colotomy offers much chance of even prolonging life. You may relieve these patients, but can rarely do more; a cure can scarcely be expected. I have seen ulceration utterly destroy both the anal sphincters, so that the anus was

but a deep ragged hole. Here is such a case which was under my care at St Mark's Hospital.

Matilda G—, admitted under my care January, 1871. She is a married woman, twenty-eight years of age. Five years ago she was a patient of mine with stricture and ulceration. She went on tolerably well, and continued so up to about eighteen months back; since then she has suffered much; she had constant pain and discharge from the bowels; she either has constipation or diarrhœa. There is entire incontinence of fæces. The straining and bearing-down is very distressing; her aspect is worn and sallow; she is not very emaciated; there is no evidence of syphilis nor consumption. On examination a large, ragged deep hole is seen instead of an anus; it is surrounded by swollen flaps of skin, two of which are perforated by fistulæ; the hole measures about two inches each way, and there is not a vestige of sphincter muscle left. On introducing the finger into the bowel it is found quite blocked up by contraction and thickening; only a very small aperture can be felt, but into this the end of the finger cannot be passed. Chloroform being given, she strained down so violently that the strictured portion of the bowel was forced outside, so that the ulceration and stricture could be plainly seen. The aperture was not larger than a No. 10 male catheter. I saw this patient over and over again, she was always benefited by treatment but not cured, at length she died in the workhouse.

Years may have elapsed before the dreadful condition I have been describing has been brought about, but it is one we only too frequently see at St Mark's.

Patients suffering from ulceration and stricture are very liable to attacks of a low form of peritonitis, attended with considerable abdominal pain, often intense for a short period. There are generally one or more spots that are tender on pressure; there is tympanitis, often vomiting, especially on first assuming the erect position in the morning, and generally the pain is brought on by standing or moving about; these attacks are sure to end in diarrhœa. The treatment should be perfect rest in bed, spoon diet, and opium may be given freely; fomentations relieve the pain,

but I have not seen any benefit result from counter-irritation. I have often found that calomel and opium given for some time is advantageous in these cases.

When making a post mortem in such cases I have observed effusion into the peritoneal cavity, and often considerable old and recent adhesions between the intestines; the peritoneum is also thickened. In bad ulceration you see what great destruction of tissue has taken place. The whole of the rectum and sigmoid flexure I have found involved in ulceration, attempts at repair in various parts giving rise to great thickening and contraction of the calibre of the bowel. The connective tissue here and there is so removed as to leave large bridges of indurated muscle and roughened mucous membrane; and there is ulceration, so deep in places that perforation must have occurred but for the adhesions kindly made by nature to the adjacent parts. In other situations the muscular coat is laid quite bare, and I have seen more than one case in which necrosis of the sacrum had taken place.

The following table of seventy cases which have been under my care at St Mark's Hospital offers, I think, many points worthy of consideration.

Seventy Cases of Ulceration and Stricture of the Rectum taken from Mr Allingham's Practice at St Mark's Hospital.

No.	Age.	Sex.	Constitutional syphilis or not.	Stricture and ulceration, where found.	Complications and observations.
1	27	F.	Yes, tertiary	Stricture 2 inches up; ulceration above and below	Fistula; mucous tubercles; primary infection 5 years since.
2	45	F.	Yes, nodes	Ulceration from anus; stricture 2 inches	Sores on labia; fistula; primary symptoms 5 years ago.
3	39	F.	Severe cons. syph.	Stricture impermeable high up	Recto-vaginal fistula; colotomy; lived 18 months.
4	30	F.	No history or appearance	Severe ulceration and stricture 2 inches from anus	No complication; outside parts normal.
5	20	F.	No syphilis; struma	Small ulcer; stricture 1½ inch; ulceration above stricture	Outward parts quite normal; hymen present; under treatment 8 years; died, exhaustion.
6	26	F.	Cons. syph.; nodes on forehead	Stricture 1½ inch; hypertrophy of nymphæ	Ulceration very high; colotomy 3 years ago; now living.
7	36	F.	No history of syph.	Stricture 2 inches; ulceration high up	Fistula in all directions, from which great induration; colotomy; success.
8	44	F.	Cons. syph. (8 years)	Stricture 3 inches long ½ inch from anus	No complications; colotomy successful
9	37	F.	No symptoms of syph. nor history	Extensive ulceration; two strictures high up	Attempted colotomy (right side); death 56 hours.
10	25	F.	Syphilis well marked	Stricture 1½ inch from anus; ulceration above and below; hardness	Large flaps of skin outside, and fistula.
11	21	F.	Ditto	Stricture 2 inches from anus; severe ulceration	Recto-vaginal fistula; syphilis 7 years at least.
12	28	F.	Probably. Sore throat now	Stricture just within reach of finger; no ulceration between anus and stricture	Recto-vaginal fistula; anus not affected.
13	34	F.	No symptoms or history of syph.	Stricture 2 inches; much ulceration	Fistula; no disease of anus; came on as abscess.
14	28	F.	Cons. syph.	Stricture 1½ inch from anus; ulceration above	Anus normal; syphilis 12 years; bad treatment.
15	37	F.	No symptoms or history	Stricture 2½ inches; bad ulceration above and below stricture	Fistula both sides of anus; large flaps of hypertrophic skin; discharging.

No.	Age.	Sex.	Constitutional syphilis or not.	Stricture and ulceration, where found.	Complications and observations.
16	36	F.	No symptoms or history	Stricture 1½ inch; ulceration near anus	Large fibroid polypus; easy cure.
17	34	F.	Cons. syph.	Stricture 1½ inch; ulceration deep above and below stricture	Dorsal fistula; anus normal; syphilis 18 mos.; rash scaly, and ulceration on tongue.
18	29	F.	None	Simple stricture 2 inches from anus; much induration but no ulceration	No internal abnormality; division and lasting cure.
19	40	F.	Cons. syph.	Ulceration commencing 1 inch above anus, stricture 2 inches	Anus natural.
20	20	F.	Ditto	Tight stricture 2 inches; ulceration	Mucous tubercles; hypertrophied nymphæ.
21	30	F.	No history of syph.	Very little stricture 2 inches; superficial ulceration	Verrucæ; no sores; speedy cure.
22	42	F.	Syphilis well marked	Stricture 1 inch up; ulceration severe and deep	Fistula; great induration and swollen lumps around anus.
23	28	F.	None	Annular, cord-like stricture 2 inches; ulceration near anus	No complication.
24	39	F.	Cons. syph.	Stricture 1½ inch from anus; not much ulceration	Large superficial sore in perineum, extending into anus; fistula.
25	24	F.	None	Stricture 2 inches, dense and long; ulceration severe	Recto-vaginal fistula commenced after childbirth; colotomy, success.
26	53	F.	Cons. syph.	Stricture tight; no ulceration above or below	Fistula in ano; syphilis 5 years.
27	27	F.	None	Stricture just inside anus; no ulceration; cure by incision and dilatation	No complication.
28	25	F.	Cons. syph.	Stricture 2 inches from anus; ulceration below and above	Syphilitic rash and sores; 9 years of syphilis
29	33	F.	None	Stricture 2 inches from anus; ulceration severe	Fistula in ano; been operated upon several times.
30	22	F.	None	Stricture annular, 1½ inches up; ulceration severe	Procidentia recti; a curious case, it comes through the contraction.
31	28	F.	Cons. syph.	Stricture severe and long, commencing 1 inch from anus; deep and extensive ulceration	Several large external growths and three fistulous sinuses.

No.	Age.	Sex.	Constitutional syphilis or not.	Stricture and ulceration, where found.	Complications and observations.
32	31	F.	None	Stricture 1½ inch; much soft ulceration	Outward parts normal; died; gradual exhaustion.
33	50	F.	None	Stricture 2 inches up; ulceration above and below	No complication.
34	37	F.	Cons. syph.	Stricture ½ inch from anus; ulceration high up	Rupia; fistula in ano; 10 years syphilis.
35	22	F.	None	Stricture 2½ inches up; ulceration above and below	Hæmorrhoids.
36	13	F.	None	Stricture about 2 inches up; little ulceration	Fissure and polypus.
37	28	F.	Cons. syph.	Stricture 2 inches up; ulceration above and below	No complication; 10 years syphilis.
38	25	F.	Ditto	Stricture 1½ inches up; ulceration above and below	Fistula through labia and into anus; growths.
39	33	F.	Doubtful; no history or symptoms	Stricture just within reach; ulceration below	Fistula in ano; recto-vaginal fistula.
40	37	F.	Cons. syph.	Stricture 2 inches; severe ulceration	Fistula; growths; colotomy; success.
41	27	F.	None	Stricture annular, 3 inches up; severe ulceration	None; cured by incision and dilatation.
42	37	F.	Cons. syph.	Stricture 1½ inch up; very severe ulceration	Huge outside growths and labial fistula; colotomy; success.
43	27	F.	None	Stricture 1 inch up; superficial ulceration	None; cured by division and dilatation.
44	30	F.	Cons. syph.	Stricture 2 inches up; ulceration slight	Recto-vaginal fistula.
45	26	F.	None	Stricture 1½ inch up; severe, deep ulceration	Club-shaped growths outside around anus.
46	25	F.	Cons. syph.	Stricture 2 inches up; ulceration above and below	Fistula in ano.
47	35	F.	None	Ulceration, so that the os and cervix uteri came through into the rectum	The uterus could not be returned; she menstruated into rectum.
48	22	F.	Cons. syph.	Impermeable stricture 2 inches up	Constipation 3 weeks; colotomy; success.
49	30	F.	Very doubtful	Stricture 2 inches up; not much ulceration	None.
50	30	F.	Cons. syph.	Stricture high up; ulceration severe.	Fistula and outside growths; syphilis 5 or 6 years.
51	25	F.	None	Stricture 2 inches; ulceration slight	Internal fistula; burrowing up under stricture.

No.	Age.	Sex.	Constitutional syphilis or not.	Stricture and ulceration, where found.	Complications and observations.
52	24	F.	Cons. syph.	Stricture 1 inch up; ulceration severe	Fistula; growths; rupial rash.
53	28	F.	Ditto	Stricture 2 inches up; ulceration only above the stricture	Fistula; very recent stricture, only noticed 6 months; indurated sores on nympha.
54	18	F.	Ditto	Stricture 1½ inch; no ulceration at all	Verrucæ; labial abscess.
55	25	F.	Ditto	Stricture 2½ inches up; ulceration severe above and below	Hæmorrhoids and fistula.
56	32	F.	Ditto	Stricture very high, only just to be felt; ulceration very deep	Fistula, several sinuses; colotomy; success.
57	22	F.	None	Stricture 1½ inch up; very little ulceration	Disease of uterus.
58	29	F.	None	Stricture 3 inches up; ulceration below slight	Fistula in ano and fissure.
59	62	F.	None	Stricture 1 inch up; ulceration above	Four fistulæ around anus, one perforating the vaginal wall.
60	47	F.	None	Stricture only just to be felt; ulceration below	Fistula in ano; complete opening below stricture.
61	50	M.	Cons. syph.	Stricture 3 inches from anus; much ulceration	Numerous fistulæ; great debility; went home and died.
62	53	M.	Ditto	Stricture 2 inches above anus; ulceration from anus	Several hard ulcerated growths; very badly syphilised, 5 years.
63	40	M.	None	Stricture 3 inches; ulceration all around rectum	Bad fistula, fæcal matter passing through; colotomy (alive 8 years after operation).
64	34	M.	Cons. syph.	Stricture 1 inch; ulceration above and below	Ulceration down to anus; fistula in ano.
65	26	M.	Ditto	Stricture 1½ inch; ulceration severe above	Stricture almost impassable; colotomy (alive now, 6 years).
66	38	M.	Ditto	Stricture 2 inches; ulceration severe	Two fistulous sinuses; bad condition.
67	29	M.	None	Stricture 1 inch, annular; slight ulceration	Phthisical; anus lost all power.
68	19	M.	Cons. syph.	No stricture, all sloughed away	Phthisis combined with syphilis had played havoc with him.
69	80	M.	None	Stricture extending from anus 3 inches up, very hard	Thought to be cancer, but dilatation and small doses of mercury cured him.
70	50	M.	None	Annular stricture 2 inches up; not severe ulceration	Anus normal; speedy cure by division and dilatation.

We may briefly call attention to some important points in the above table. In 70 patients, 60 were females and 10 males, a large predominance of the former, but not so great as has been given by some authors. Now, you will find on examining the table that 35 had suffered from undeniable constitutional syphilis, while 5 had some symptoms, but not decisive, of ever having had the disease, so I think this number should be deducted from the whole number 70, before we consider the statistics of the rest, viz. 65, and we find 35 were most undoubtedly syphilitic, and 30 as undoubtedly never had contracted syphilis, and many never any venereal disease.

The males, though small in number, are worthy of a moment's consideration; of the 10 males, 6 had suffered from some form of syphilis, but 4 had not, and there was great probability that they had not been affected by any venereal disease; they denied any venereal taint, and I think from the way they spoke, and the desire they had not to deceive me (as I made it a matter of great importance to them in treatment if they did not tell me the truth), I felt bound to believe them.

Ten of my cases were subjected to colotomy in the lumbar region, and for the most part did well, and I believe several (5 or 6) are now alive. Two of the women have married since the operation. In one female I attempted to open the ascending colon, and after a most careful search I failed to find it, but in mistake opened the duodenum, as it embraces the head of the pancreas. I like to mention this case to show how in difficult cases a practised colotomist may go astray. This patient had a

very enlarged liver, and was in the habit of tight lacing, so the liver, being pressed downwards, carried the ascending and transverse colon diagonally to the left side, and the post mortem showed that it was next to impossible to reach the ascending colon from my incision. I must observe, the duodenum when brought up from a depth is very like the colon. Four hours after the operation I knew what I had done, as a large and constant flow of bile took place from the wound, she vomited frequently, could take no nourishment, and died on the third day.

Before and since that operation I have opened the ascending colon and found no particular difficulty, but there is no doubt that the ascending colon is more liable to be displaced than the descending. I do not in any way wish to extenuate my error in the case; at the time I grieved seriously over it, and I have never forgotten it. I always think I ought to have made a more careful examination, and to have found that the liver was enlarged, and came as low down as the crest of the ilium, and so was almost certain to push the ascending colon out of place; further, I now think I ought by manipulation and percussion to have found the ascending and transverse colon was out of position. However, we may learn more from our errors if we take them to heart and study them than from all our successful cases. In forty-seven operations the case I have related is the only one in which I made any mistake or failed to find the colon.

Of the 30 patients who had never been syphilised, it was possible that many more, but highly probable that 13, had never had any venereal affection whatever.

Inoculation in all these cases proved abortive, either there being no result, or only a small evanescent pimple appearing.

The cases here mentioned are No. 5, observed for 8 years, died of exhaustion; would not submit to colotomy.

No. 7. Colotomised and cured, all ulcers healing; this patient has now been five years in good health.

No. 16. Had large fibroid polypus with stricture and ulceration; removal of polypus and dilatation with incision effected a cure.

No. 18. Division effected a permanent cure.

No. 25. Colotomy effected cure, patient watched for years and keeps well, at last, all the strictures being cured, the wound in the loin was closed.

No. 29. Division of fistula and dilatation of stricture effected a cure.

No. 36. Fissure and polypus, with ulceration and stricture, operation, subsequent dilatation cured, some months after found well.

No. 43. Stricture and ulceration, cured by incision and dilatation.

No. 57. Disease of uterus, enlargement of fundus, retro-version, Hodge, dilatation, cure.

No. 59. Stricture and fistula, ulceration, careful division of fistula and stricture, cure permanent.

No. 67. Male, annular stricture and ulceration, phthisis, relief.

No. 69. Stricture very long and hard, gradual dilatation of stricture, cure, and no relapse.

No. 70. Annular stricture high up, incision and dilatation of stricture, cure.

As far as inoculation is considered, I performed it

on many patients in whom severe constitutional symptoms of syphilis with outside growths existed, and never got a true chancroid as the result; many small pimples and sores which healed in a few days, but never a typical soft chancre, so I certainly did not inoculate from a soft sore.

I know many of these patients died after years of treatment, numbers of them being admitted and re-admitted into the hospital. They die either of some intervening acute disease, obstruction in the bowel, or gradually undermined and broken-down health, the workhouse infirmary often sees their end, which may be very rapid. In sixteen cases I performed Verneuil's operation of linear rectotomy, but always with the knife, never with the écraseur or galvanic cautery as he has recommended. One thing I have learned in my long practice—not to fear any hæmorrhage from the rectum.

This is the essence of Prof. Verneuil's operation:—the whole stricture must be divided from its upper edge down to the coccyx, and through its entire depth. Thus a deep drain is made, from which all discharges freely flow, and as it heals up, the ulceration ceases and the stricture is sometimes cured. The patient being in lithotomy position, what I do is simply to pass my finger through the stricture; I then introduce a long straight knife along my finger, when the point is fully above the stricture; I cut firmly down right through it in its whole depth, even to the sacrum if necessary, and bring the knife out at the tip of the coccyx. If you keep the median line the bleeding is but trifling, and the whole of the diseased structure has been cut through.

So rapidly beneficial is this, that in forty-eight hours I have often seen night sweats arrested, and a patient who seemed about to die rally and eat and drink, and get well from that moment; morbific discharges instead of being absorbed, run out, and the patient is not poisoned. The wound should be well syringed, and the parts kept perfectly clean. I always use dry absorbent cotton wadding as the dressing, and I only want my patient washed at most twice in the day; too frequent use of any fluid, carbolised or not, soddens and weakens the granulations; if you want these cases to do well, dry dressings are those I advise you to employ.

Many of these patients have done well, and I have had permanent cures, but others have failed, and I have seen a return after even three or four years. In the after treatment I often place a tube in the wound, keeping it in at night, which tends to prevent contraction.

More of the seventy cases would have been colotomised, but often it is difficult to get the patient to consent, as I think it proper to put fairly before the sufferer the disadvantages as well as advantages of the operation.

Many cases were treated by dilatation, assisted, in some instances, by small incisions; great care and pains are required in the treatment by dilatation, but it may be satisfactory, and I will relate some cases in which it was eminently so. Stricture of the rectum, however, is a disease infinitely more uncertain, more prone to relapse, and more difficult to treat than stricture of the urethra. In some few cases, immense good resulted from the administration of iodide of potassium and mercury; but, on the other hand, often when it was

expected to benefit, no curative result followed. So on the whole I place no faith in specifics.

I think it is greatly advantageous to compare the results of our hospital with our private practice, so different are the patients in their habits; the food they take, the houses they inhabit, their cleanliness, sobriety, the comparatively early stage of the malady at which they seek good advice, that one often finds the success in private practice so much greater as to be really astonishing. I shall proceed as shortly as I can, consistent with clearness, to give the heads of cases treated in private by me during the past three years. Time prevents my pushing my researches further back than the beginning of 1876.

Case 1. Female, married, 37. No children, no miscarriages; stricture about three inches up the rectum; ulceration both below and above it; no history of syphilis at all; never had any sores nor discharge more than a little whites; has no pain except such as arises from straining and frequent desire to visit the closet. The husband, perfectly willing to clear up the question, examined—Never had syphilis, but had gonorrhœa, but not since his marriage eight years ago; never had any soft sore or enlarged glands in groin. No scars on penis or in groin. The disease his wife suffered from was first complained of about five years ago; has had advice and bougies passed. I thought it advisable to divide the stricture in several places, and keep in a tube at night. Various plans of treatment were employed with the result of a cure in nine months; good reason to believe she continues well.

Case 2.—Female, married, 27. Had children and miscarriages, last two alive and appear well. Husband contracted syphilis since his marriage, secondaries followed, and his wife, then *enceinte*, became syphilitic; child died a few weeks after birth; it seemed healthy but feeble. She was treated then by her medical man for secondary syphilis. Ulceration and stricture two inches from anus; no symptoms of syphilis now. She suffers much from the bowel. Careful dilation and treatment of ulceration made her quite comfortable, but I feel sure to this day she is not quite well. Seen with Dr Smith, of Blackfriars.

Case 3.—Female, married, 30. Constitutional syphilis, acquired from the husband. No miscarriages, but two children had syphilis; were treated and are now living. *Examination.*—Almost impassable stricture, obstruction so great that I performed colotomy, Mr T. Carr Jackson assisting me; result good, but continued discharge from the rectum and the stricture very tight. I have been seeing this patient occasionally for the last four years. The husband, a dissipated man, has had all kinds of venereal disorders.

Case 4.—Female, married, 48. No constitutional syphilis, and has never had any symptoms. Husband healthy, and says never had any venereal affection of any kind; married very young, his wife being not nineteen. Eldest child eighteen, and all family healthy. *Examination.*—Stricture and some ulceration two and a half inches from anus; good deal of pain and straining. Slight division and careful dilatation effected a cure in five months. I am informed has continued well since.

Case 5.—Female, married, 38. No symptoms of constitutional syphilis; has healthy children; very painful annular stricture near anus; some swollen flaps of skin extrude; ulceration extending for an inch and a half upwards. The husband confesses to syphilis, but considered himself as quite well years before his marriage; has no symptoms now; division of the stricture; blue ointment with opium to ulceration and careful dilatation cured her in about two years. I have not heard of any relapse.

Case 6.—Female, married, 37.—Stricture and ulceration rather severe; stricture one and a half inches from anus; suffers much; has dimness of vision which I found to be caused by iritis; has syphilitic rash, rupial; is very cachectic and feeble; one child nine years old quite healthy. Her husband was under my care about twelve years ago for indurated sore; moderate mercurial treatment for six months; all symptoms gone, and left off medicine. Seen again after nine months with secondary rash, rather scaly, and sore throat; mercurial treatment again, hydr. cum cret. at bedtime, and blue ointment between the toes; very soon well, and would not take any more medicine. Came to me four years after to consult me about the propriety of marrying. On careful examination I could find no evidence of syphilis, so thought he was justified in doing what he liked. He soon after I saw him married, and the only child born fifteen months after marriage was healthy, and has continued so. To return to the wife three years after her marriage she had a rash and sore throat. She was treated by her medical attendant with iodide of potassium, and she quickly recovered; the husband during this time had flying attacks of

syphilis for which he saw me two or three times, but took by his own prescription iodide of potassium and sarsaparilla. This went on until the wife having severe bowel symptoms was sent to me. The treatment consisted of mercury and iron; the stricture was a little dilated, and she was sent to the sea-side; great improvement took place in general health, the iritis got rapidly well, and the stricture was much modified by gentle dilatation; the ulceration also healed in great measure so that she suffered but little, and the bowels acted only about twice in the day. The husband denied any fresh infection since his marriage; slight crops of secondary character were frequent, and he on one occasion had an indurated crack at the orifice of the urethra. The wife eventually was quite cured. I have related the above rather in detail as one has rarely so good an opportunity of watching such a case so long.

Case 7.—Female, 36, married many years. Sent me by Dr Playfair. Husband says never had syphilis; no symptoms in his wife. Stricture two and a half inches from anus; slight ulceration; a very feeble woman; never any children; tendency to lung affection. Phthisis in family; has from early after marriage suffered from inflammation of the uterus, and has now a fibroid in its posterior wall. Has a very spasmodically contracted sphincter, and the stricture is long, so that one cannot feel the extent of it; despite all treatment this case went on to total obstruction, and colotomy was performed. The case did well, duration of stricture at least ten years.

Case 8.—Female, married, æt. 45, no children. No history at any time of syphilis. Sent me by Mr Burton, of Blackheath. Stricture and slight ulceration three inches up from anus; no symptom of present or past syphilis in patient or husband; great relief in six months; treatment hy dilatation and mercurial ointment. Saw this patient lately and she remains well.

Case 9.—Female, æt. 50, lady came from Philadelphia to be under my care. History very doubtful, but has had many and healthy children, and several difficult labours; no deaths; no miscarriages; children nearly grown up. Very bad stricture and ulceration; linear rectotomy in the median line; tubes kept in for weeks; eventually a very perfect cure; stayed six months in England, and went away without any tendency to contraction. I have heard from this patient two years since, she went from my care and she continues perfectly well.

Case 10.—Female, married, æt. 37. No family, the wife of a medical man. Stricture near anus, ulceration, swollen tabs of skin, ichorous discharge. The husband had a hard sore and secondary symptoms not long before marriage, and knew he had affected his wife whom he

treated from time to time. Now, about seven years since, the first symptom appeared in his wife, at which time he had mucous sores on the lip and anus. Treated for a long time by specifics and local treatment, including division of the stricture, but only great relief, which constant wearing a tube maintains, but no permanent cure I fear will be effected.

Case 11.—Female, married, æt. 29. Severe ulceration; stricture two inches up the rectum; recto-vaginal fistula. Husband, a dissipated man, confesses to have had syphilis and gonorrhœa many times. The wife had tertiary sores on legs; mucous papules; nodes on head; very cachectic and feeble; small doses of mercury twice in the day, with iodide of potassium and arsenic with decoction of cinchona; good diet and fresh air soon restored her health, and attention was bestowed on the stricture; it was divided in several places very lightly and a tube worn, but the tenderness defeated all the treatment, she could not retain anything. Suppositories or sedative injections were at once returned and pain was increased. Her health again broke down, and as a last resource colotomy was performed, but she only lived three months; relieved from pain, but never rallied.

Case 12.—Female, married, æt. 60 (widow). Stricture a little up the bowel, one and a half inches; slight ulceration. Has many children grown up healthy; only for a few years suffered discharge; frequent going to stool and general decline of health. Sent me by Mr Sloman, of Farnham. Division and dilation of stricture; mercurial and opiate treatment of the ulceration; wearing a tube at night effected a great improvement, in fact I think there is every reason to hope for a cure. I have since heard of this lady doing well.

Case 13.—Female, unmarried, æt. 55. Sent to me by Dr Lockhart Clark. For many years has suffered from difficulty in the bowels. *Examination.*—Long stricture tight two inches from anus; very little ulceration, but considerable roughness nearer the anus evidently the scars of old ulceration; the index finger could be passed through the stricture after some pressure. The history of the past showed that she had suffered much in the rectum, pain, bleeding, discharge of mucus and constipation, alternating with diarrhœa. Had consulted many physicians, and taken enormous quantities of medicine, laxative and tonic; she had taken great care of herself, lying up much. Extreme caution in diet, living almost solely on fish, vegetables, and fruit. She says, on the whole, constitutionally she is better, but increasing difficulty in obtaining relief brought her to me. The case I considered one very amenable to treatment by dilatation and keeping in the tube at night. This I adopted, and in three months she was

better than she had been for many years. The cause of this ulceration and stricture, I have no doubt from the history, arose from inflamed and perhaps suppurating hæmorrhoids, the submucous tissue got affected, and hence the ulceration and stricture. There was no appearance of any tuberculous tendency, and certainly no syphilis acquired or hereditary. I cannot see why in many cases a similar condition may not result from constipation and inflammation.

Case 14.—Female, married, æt. 34, attended with Mr Seymour Haden. Stricture for long time; seen by Mr Haden one month ago, when the obstruction was almost total, and she had constant vomiting. Mr Haden got a tube through and relieved the obstruction. No history of syphilis or struma in the patient or husband; the question of syphilis in my own mind was quite settled in the negative. I attended this patient for some time, and she much improved. Her husband was a chemist, and with a little teaching became quite skilful in passing the bougie. I lost sight of the patient, and do not know the ultimate result. My opinion was that the cause of the stricture was very severe labours, and long pressure of the child's head. It is not uncommon for women to connect their bowel trouble with a bad or instrumental labour. Although I should not consider this a common cause of ulceration and stricture it ought not to be left out of our consideration.

Case 15.—Female, unmarried, æt. 27. Seen by me in conjunction with Mr Aikin and afterwards with Sir James Paget. Had been operated upon for fistula; and ulceration followed, severe in character; got better and worse. Brighton air did her so much service that a happy result was anticipated, but, however, she fell back again. When I saw her with Mr. Aikin the sphincters were quite ulcerated away; with great difficulty the finger could be got through a stricture two inches up the bowel. The history led me to conclude that the disease was tubercular; I advised immediate colotomy. I did not see this patient until four months later, when she was much worse; abscesses had formed in the groin, and a communication was established between the vagina and rectum; her condition was so deplorable that an operation was only undertaken as a means of relief by turning aside the fæces. With the sanction of Sir James Paget and Mr Aikin I colotomised. After the operation I pointed out that the ulceration could be detected from the aperture in loin by passing the finger towards the rectum. Her history from this period was, some temporary arrest of the ulceration, but this did not last long, and soon it could be seen on the bowel in the lumbar opening. Abscesses formed in all directions and burst or were opened in several places, so that the interior of the pelvis could be seen. She died just three months after the operation. To a certain

extent relief was obtained, but not so much as I think would have resulted had colotomy been earlier undertaken. The ulceration was serpiginous in character.

Case 16.—Female, married, æt. 34, no children, was seen by me in consultation with Dr T. B. Crosby. She was suffering and had been for years from tertiary syphilis; necrosis in the tibiæ having taken place; had not undergone anti-syphilitic treatment for lengthened periods. There was ulceration and tight stricture in the bowel; the urethra was ulcerated through in nearly its whole length, so that incontinence of urine resulted; some communication had taken place between the bowel and the bladder as wind freely passed on her making water or on introducing a catheter. Treatment was undertaken by passing a bougie, keeping the bladder empty, and her constitutional powers were much improved by small doses of mercury and tonics. Result of treatment nugatory as regards the incontinence of urine.

Case 17.—Female, married, æt. 47, no children. Seen with Mr Theophilus Taylor. Syphilis undoubted; tertiary scars being present, ulceration of rectum and stricture, very much discharge; great pain, straining, and constant desire to go to stool; constitution very much undermined. The stricture was so tight that division was made in dorsal median line, and bougies soon after introduced. Tonics (iron and mercury in very small doses) were administered; after long treatment great improvement took place. The wound healed and the ulceration was very slight so that the discharge became almost nil, and was mucous rather than purulent. She was instructed to pass the bougie (very short one) herself, as the stricture, not being high up, she could safely do. When last seen was wonderfully improved, but had incontinence of fæces if at all fluid. Still the comfort she had derived from treatment was most marked and satisfactory to her as well as to her medical attendants.

Case 18.—Female, married, æt. 42. Three children fairly healthy. Sent me by Dr Herbert Davies. Suffered for a long time with constipation, and straining at stool; no evacuation obtained without medicine or enemata; rather thin, but not unhealthy looking; no miscarriages; no history or appearance of syphilis. *Examination.*—Found tight, annular stricture one and a half inches from anus; ulceration below the stricture as well as slightly above; some swollen outside skin, not discharging. The stricture proved very dilatable, so the use of the bougie enlarged it much in about three weeks, and she was then more comfortable than she had been for years. The ulceration also got better by the use of a bismuth, morphia, and pitch ointment,

In fact so much better was this patient at the end of two months, that she has not visited me since.

Case 19.—Female, widow, æt. 59. Sent me by Mr Pinching, of Gravesend. Long troubled with her bowels; never passes formed motions, always in small broken pieces with blood and slime on them; has been getting thinner, but says her health is fair, and if she was comfortable in her bowels would be quite well. *Examination*—Stricture tight, *i. e.* could only get forefinger through and this caused much pain; the edge of the stricture was ulcerated; many years ago had been operated on for piles at a London hospital; she was in poor circumstances then; from that day never had perfect comfort in the use of her bowels. I slightly divided the stricture and introduced bougies gradually increasing in size, and by the application of ointments the ulceration gradually got better so that she could sleep all night with a bougie in the stricture. In three months she was quite well; no trace of stricture could be felt, but corrugations and roughness, showing the healing of the ulceration, remained. I have seen this patient more than a year after the treatment and she continued quite well. I have no doubt this stricture and ulceration was the result of the operation on the piles.

I have seen for years past numerous cases of ulceration with stricture result from operations upon the rectum, but as this condition usually takes place shortly after the operation and manifestly results from it, I have not given any histories of such cases, although they frequently take a great deal of time and trouble to cure.

Cases in private practice of ulceration and stricture in males.

Case 1.—Male, æt. 23. In the army. Had a hard sore some three three years back and was treated. After a time he suffered from pain on defecation, and he went to a surgeon, who said he had syphilitic sore and must be operated upon, but after the cutting the sore became worse, and he came to me. I saw the sore unhealed and inflamed, and suspecting more, I with difficulty passed my finger up the bowel, when I found that above the sore, which had been divided, quite an inch of

healthy mucous membrane forming a zone around the bowel, then some more ulceration in a zone an inch in width. He had no other sign of syphilis but a sore throat. Mercurial ointment, arsenic, and iron, with cod-liver oil as he was weak and feeble, soon made an improvement. In a fortnight a bougie could be passed, and all healed in about eight weeks.

Case 2.—Male, æt. 40, married; had never had syphilis, but told a strange story, that if he was affected it arose from taking a Turkish bath. Very bad ulceration extended two inches up. Stricture was tight, and he had much pain, and got no relief unless he took large doses of purgatives. Linear rectotomy and twelve months' great care nearly cured him. I have not seen him for nearly a year and a half since the operation, but I have heard he is not well.

Case 3.—Male, æt. 29, unmarried. Had syphilis, and was treated by Ricord, of Paris, for eighteen months, and thought himself quite well; had lost all rash and all symptoms for months, and then discontinued all his medicines. About six months after he found pain and straining on defecation. As he was coming to England he was recommended to me. On examination I found just inside the anus ulceration, with stricture, very painful to touch; he could not bear the bougie. The use of an ointment composed of bismuth, blue ointment, and opium, soon relieved the pain, and I was enabled to dilate, and he kept bougies in. This patient had never had soft sores in his life, nor even gonorrhœa. He was not a strumous, nor in any way a delicate man. The case ended favorably, showing the desirability of early treatment.

Case 4.—Male, æt. 28, unmarried, a native of India studying medicine in this country. Had suffered from dysentery and diarrhœa frequently, but not severely, in his own country. Has been in England two years and no severe attack, in fact, much better here than abroad. About one month ago felt pain on defecation, but took a little laxative, and found himself better, but still straining was frequent, with mucus and occasional blood. He came to me; he was a small, thin, agile man, more intelligent than common. *Examination.*—I found three inches from anus a stricture through which only a small bougie would pass. Injections of opium and starch in very small quantities relieved the pain, and allowed me to increase the size of the bougie. The stricture proved very amenable, and he was soon restored to perfect comfort, and his health improved. I advised the continuance of the short small bougie.

Case 5.—Male, unmarried, but who intended to be married; came to me about an uneasy sensation in the rectum, frequent diarrhœa, and straining; occasionally mucus passes in abundance; was treated for

syphilis with mercury in various forms by one of our best surgeons; now felt himself quite well. *Examination.*—Stricture an inch and a half from anus, above the stricture ulceration. The stricture was hard but the ulceration very soft. Had no other venereal affection since the sore. Health fair. I found it, after a time, necessary to divide the stricture freely, then the ulceration, by treatment—topical chiefly—rapidly improved, and after nine months he was fairly well. During my treatment I sent him to Aix-la-Chapelle, as he had a return of syphilitic sore throat and rash, to be under the care of Dr. Brandish and undergo baths and mercurial inunction. He came back without any rash, and with his health greatly improved. The ulceration had then not healed, but soon after he got quite well, and, I think, remains sound.

Case 6.—Male, single, æt. 47, retired captain in the army; very bad stricture and ulceration; feeble and much worn and emaciated; says never had any venereal affection whatever, and as he had no reason for deceiving me, and I could find no trace of syphilis anywhere, I believed him. For some years he had this affection, and when in the army in India he was treated with bougies, but with very slight advantage. No history of phthisis in his family. Suffers very much. A careful course of bougies, keeping them in when he could, a little division of the strictures (for there were two) in several places, gradually got him into comfort, but cure seemed hopeless. He returned to me a few months back, and finding him suffering much I proposed colotomy, to which he acceded. The operation has proved a signal success.

Case 7.—Male, single; said to have had only soft sore, but as copious rash followed, I am fain to believe, although the diagnosis was made by one of our greatest syphilographers, that an error was fallen into. Two years after this sore he suffered pains on defecation and came to me. On *examination* I found stricture and ulceration commencing one inch from the anus, which outside appeared normal. The stricture was annular, and I divided it in several places and cautiously dilated. Blackwash lotion benefited the ulceration, but iodoform did most good, and he was soon well. I advised the use of the bougie once in the week for some months.

Case 8.—Male, æt. 26, lieutenant in army; no history of syphilis or venereal disease whatever. Ill about nine months. Saw this patient with Sir James Paget, who agreed with me in the opinion that the disease was strumous. When I first saw him he had a stricture quite tight close to the anus. This I divided and dilated only to find another stricture three inches higher up, and plentiful soft ulceration between the two strictures. Local and general treatment failed to do good, neither did a voyage of some months' duration. When he returned he was seen in

conjunction with me by Sir William Gull, whose opinion coincided with Sir James Paget's and my own. He is still being watched, and on the whole is better, but frequent diarrhœa; straining; discharges of blood and mucus still occur. He had never had dysentery nor habitual diarrhœa.

Case 9.—Male, æt. 37, married. History of soft sores under prepuce, and buboes, one suppurating. No hardness observed, and no eruption or symptoms of constitutional syphilis known. Healthy looking, strong, man. An interval of eight months elapsed from the cure of his soft sores until he complained of passing blood and mucus with pain per anum. This went on for some time, and he treated it as piles, taking laxative medicines and using lead ointment. Finding no benefit he was sent from the country to me. The history was given so truthfully that I could not doubt his words. He had no symptoms of syphilis, but he showed me a wound in the groin where one bubo was opened. On examining the rectum I could only just pass my finger through the stricture, and I found ulceration above it, but no trace of any below, he had small external piles, but no ichorous growths. The treatment was slight division of stricture, wearing a bougie all night smeared with bismuth and morphia ointment, to keep the bowels open by the liquorice powder (Pharm. German), to avoid all alcohol and meat and to live on farinaceous food with plenty of milk. Success soon crowned this treatment, and in three months he was quite convalescent.

Case 10.—Male, æt. 46, first officer in American line of steamships; has suffered for years in his bowels, terrible constipation, and passed motions with blood; much pain and frequent going to stool; been treated for piles, and always took sulphur, from which he derives considerable benefit. Very strong, healthy, steady man. Never had any venereal disease at all. Steadfastly held to this statement. Did not mean to say that he had run no risk, but had been fortunate. I could detect no sign of syphilis, no bubo scars, or rash. *Examination of rectum*,—Tight stricture an inch and a half from the anus, and there was ulceration above and below the stricture. I divided the stricture and dilated, keeping in a vulcanite tube for several days. He became so much better that at the end of three weeks he again went to sea, using at night a small tube, which he could wear with comfort and no danger. I saw this patient many times, and found him always better, but a slight discharge of mucus still continued, but as his constipation was removed and he suffered no pain he became quite satisfied with the result. The only thing that radically benefited his constipation after the operation and dilatation was a dinner pill, which he took every other day, composed of extract nux vomica, ipecacuanha, and compound rhubarb pill.

From a study of the history of nineteen females treated, and watched afterwards for some time, it appears that seven had undoubted signs of constitutional syphilis, and twelve had neither the symptoms nor history of any form of venereal disease; thus there was much less undeniable syphilis in private than in hospital practice. In the non-syphilitic patients, the ulceration was mostly tuberculous. Two patients ascribed the disease of the bowel to many difficult labours. I cannot see why this should not be a source of ulceration ending in a constriction; in fact, I wonder we do not oftener distinctly trace it as cause and effect. One case resulted from an operation performed upon the rectum long since.

In most cases, having the husband before us to interrogate and examine, we are enabled to compare his condition with that of his wife. I am confident in the main the evidence of the husband was to be depended upon. In case three, which was one of the worst strictures I ever saw, and in which I was compelled to perform colotomy, the husband had suffered all kinds of venereal infection. Case six had iritis, and well-marked syphilitic rash. I knew her husband had suffered from constitutional syphilis, as I had treated him. The poison probably was quiescent at the time he impregnated his wife, as the child was born healthy and has continued so up to nine years of age. Twenty months after the child was born, the mother suffered from syphilis for the first time. The husband about that time consulted me for slight flying attacks of secondary symptoms, and he said there had been a crack at the entrance to the urethra, and, in my opinion, that crack inoculated his wife; she was not

under my care, and no search was made for any sore, and it was not until seven years after she had become syphilised that she came to me. In four cases lumbar colotomy was performed.

A few words about the male patients who were ten in number; observe in private practice how many more men in proportion to women than in hospital practice. Three had decided constitutional syphilis. One had doubtful symptoms. One had suffered from a soft sore under the prepuce, accompanied by a suppurating bubo, and the remainder, viz. five patients, had no syphilitic or venereal taint. Of these, repeated dysentery was probably the cause in one if not two. Two resulted from tuberculosis (my opinion in these cases was sustained by Sir James Paget). One resulted possibly from the hard life of a sailor; bad feeding, exposure to weather, dysenteric diarrhœa at times, but usually the most intractable constipation, his rectum for years was constantly irritated by forcing through hard and dried masses of fæces. In such a case injury to the mucous membrane could not be an unexpected event. It is often difficult to trace the cause in a case of ulceration, but really such conditions as I have described must sometimes be either predisposing or exciting. In one case only was I obliged to perform lumbar colotomy. In one case also, Verneuil's operation was done; the success, however, was more than doubtful, as I have heard this patient is still suffering. I have found, speaking generally, that a fair amount of relief is more frequently attained by treatment in men than in women. Various reasons will suggest themselves to my readers, as conditions of the uterus, ovaries, vagina, coitus, &c. Lastly,

I would observe that complete cures are seldom, if ever obtained, but great relief is not uncommon and in favorable cases, by proper attention, the patient's life may scarcely be shortened by the malady.

On summing up my own statistics, I can, in short, state that in women forty-two out of seventy-nine had suffered or were suffering from undoubted constitutional syphilis, and in twenty males, half were in the same condition, thus out of the total number of ninety-nine patients, fifty-two or more than half were syphilitic. This is a greater proportion than I have seen mentioned before, but as far as I can ascertain, the truth is stated. What causes brought about the ulceration, &c., in the forty-seven patients who were not syphilitic? We have propounded some causes, viz. tuberculosis (not so uncommon as generally supposed), dysentery and diarrhœa; usually following prolonged residence in tropical climates, obstinate long-standing constipation, injuries to the uterus and vagina in parturition, operations on the rectum in persons of bad constitution: but will these causes account for all the cases? I am obliged to say I do not think so, and to confess in the majority of these patients I do not know the cause, nor have I been able to trace out any definite common state preceding the malady. If we could answer the question why ulceration and stricture is so much more frequent in the female than in the male, we should possibly have a clue, but for my part, I cannot see that any satisfactory reply has been given to this question, nor has it to another question; why is epithelioma comparatively rarely found in women?

In connection with this part of the subject, I must

say a few words about the view entertained by some French authorities, and also by eminent American surgeons, viz. that the vast majority (some say all) of cases of stricture and ulceration, not cancerous, result from contamination by the discharges from "soft sores" or "chancroids." They scarcely admit that constitutional syphilis has anything to do with the cases I have been considering in this chapter. When the last edition of this work appeared, I well knew that Dr Gosselin, of Paris, had published these views, but I knew also that his conclusions had been arrived at from very few observations, that another explanation of his cases, which I will not mention, could be readily found, and that his theory had received but feeble support from any of his confrères while many of the most eminent authors on syphilis, as Ricord, Fournier, Mollière, and others had repudiated his doctrines "in toto" so I did not touch upon the subject, but since I have received a monograph from Dr Erskine Mason, of New York, who adopts Gosselin's views in their entirety, I have without prejudice considered the subject, and observed my cases from the stand-point Dr Mason takes, and I must state I am not by any means convinced by Dr Mason, though entertaining a very high sense of the ability and spirit with which his monograph is written.

I think I have made it quite clear in the past pages that in both sexes the most intractable ulceration and stricture of the rectum may arise without there being any *venereal* element whatever in its causation, and I think I am not alone in this view. It appears from Dr Mason's statistics, as well as my own, that about half the patients with ulceration and stricture "have,

or have had " constitutional syphilis. A fair inference is, I think, that some form of syphilis may cause the rectal lesion. Post-mortem examinations have revealed, in addition to rectal ulceration, deposits in the liver, lesions of the brain and membranes, and diseases of bone; at least probably all these resulted from the same cause; but I do not wish for one moment to maintain that in every case when syphilis and ulceration of the rectum coexist the latter is caused only by the former.

It is no sound argument to say that if the ulcerations of the rectum were syphilitic they ought to yield to the usual anti-syphilitic remedies, because it is well known that the latest syphilitic manifestations, or the sequelæ of syphilis, are commonly not amenable to specific treatment, whether they occur in one or other organ, and in fact the time has passed away in which any constitutional treatment could be expected to have much effect.

Dr Mason says, " I have repeatedly noticed the anus become contracted in women after the healing of several simple chancroids involving this portion of the intestine," I must say I have never seen such a thing myself.

How can the discharge from a soft sore get into the anus and thence to the rectum? by the discharge running down to the anus; possibly, but I should say rarely. Through menstruation? more probably. By direct contact from the male organ? most probably. In France this cannot be uncommon, I trust it is not common in America, I cannot say that in this country it is altogether unknown, but I hope and think it is infrequent. I will make this assertion

without fear of contradiction; in the large majority of ulcerations of the rectum the disease does *not* commence at the *anus*, but at least an inch up the bowel, a condition, I would say, quite incompatible with the theory of inoculation from external discharge, but in accordance with what one might expect when the discharge was implanted by direct contact. Dr Mason's own statistics bear out my statement as to the usual site of the ulcerating stricture.

Has any one seen soft sores anywhere causing induration and contraction of tissues? do we see this in soft sores under a long prepuce? Then, once more, how does phagedenic ulceration accord with contraction and fibroid degeneration of tissue, which is one of the essential charateristics of advanced ulceration and stricture?

Dr Mason asserts that he has seen "constriction of the rectum follow, and that very shortly after the healing of chancroids had taken place." I would ask is this a pathological probability; and is the *post hoc* necessarily the *propter hoc* in such a case?

I shall but cite some eminent authorities on this very interesting subject, as space is wanting for further argument and observations. Time, I am sure, will dispel all doubt, but at present, I think, we may safely say that the chancroid theory does not account for the majority of strictures and ulcerations of the rectum.

Ricord has expressed the opinion that many cases of stricture were caused by syphilitic deposits and ulceration. Fournier most positively has asserted that stricture and ulceration of the rectum were commonly caused by constitutional tertiary syphilis, and

most rarely by local contamination of any kind. Lancereaux, in his book on 'Syphilis, Historical and Practical,' states that gummata have been found in the large intestine, and although inclined to agree with Gosselin, and regard these "contractions of the rectum" rather as venereal than syphilitic, yet would not too exclusively adopt the theory; gummy deposits being found in other parts of the intestinal canal there is no reason why they should not occur in the rectum. The English surgeons most experienced in syphilis almost with one accord adhere to the constitutional, and discard the local origin of ulceration and stricture of the rectum. I have scarcely spoken to one gentleman who has not given me a similar answer to my questions on this point.

My friend and former colleague, Mr James R. Lane, at my request wrote me his opinion on this subject, and I venture to submit that few men have had greater opportunities for studying the matter than he. Many years Surgeon to the Hospital for Diseases of the Rectum, the worst forms of stricture and ulceration are perfectly familiar to him; for a still longer period Surgeon to the Female Lock Hospital he has had an almost unbounded field for observing every kind of sore to which the female genitals is exposed, and what does he say? "I believe that the ulcerated strictures of the rectum to which you allude, and with which I am so familiar, are very rarely, I am almost disposed to say *never*, caused by primary syphilitic ulceration of the nature of soft sores. According to my Lock Hospital experience by far the most common seat of such sores is at the inferior fourchette, and the verge of the anus. They get well in due course under simple treatment like

soft sores generally do; sometimes, when situated on the sphincter ani, they produce the pain characteristic of 'anal fissure,' but they will heal all the same and the pain will disappear. When one of these sores extends into the rectum, which is very seldom the case, the result is a circumscribed rectal ulcer, which with treatment and especially judicious cauterisation will usually heal." Mr Lane further guards himself against being supposed to consider all bad ulcerations and strictures as resulting from constitutional syphilis. In Mr Lane's observations I most heartily concur, my experience of soft sores near the anus is that they speedily heal under proper treatment, and I have seen many cases cured in a few days by cleanliness and the use of a tartrate of iron lotion, and though these patients have been seen from time to time for other ailments, no ulceration or stricture of the rectum ensued.

Mr Walter Coulson, Surgeon to the Lock Hospital, has never seen ulceration and stricture result from a soft sore, nor has my colleague, Mr Alfred Cooper, who, like Mr Lane, is Surgeon both to the Lock Hospital and to St Mark's, and, therefore, has the double opportunity of noting these sores from an early period and following them, if they came, to the Hospital for Diseases of the Rectum afterwards.

Mr Christopher Heath, of University College Hospital, has in some lectures by him on "Diseases of the Rectum" strongly expressed his conviction that the cases we have been discussing are commonly the result of tertiary syphilis. Mr Bryant in his 'Practice of Surgery' looks upon these ulcerations and strictures "as mainly syphilitic," and only thus notices Gosselin's views, "Foreign authors describe chancroid dis-

ease of the rectum, venereal but not syphilitic; in this country it is hardly recognised."

There are no maladies more baffling to the surgeon than ulcerations and strictures of the rectum, and, as I have before said, they are often quite incurable, and nothing affords relief save colotomy, but this operation, though doubtless it may prolong life, should not be resorted to without due consideration, because one cannot fail to see in many cases the remedy proves a most objectionable one; an opening in the left loin through which the fæces escape is very harassing, and nothing but a great desire to live or the fear of immediate death would lead me to submit to such a proceeding. I presume after years the patients get used to the discomfort and loathsomeness of their condition. My patients who have lived long seem to have had some pleasure in life, indeed, two women were married after the operation, but with all that I entertain repugnance to the operation greater than I formerly used, and latterly have mostly performed it as a last resource or for total obstruction. It is not quite impossible after colotomy that the ulceration and stricture may get well, and then the wound in the loin might be closed; this I have once done, but although I have tried I have never succeeded again. In the earlier stages of ulceration and stricture from whatever cause, save cancer, treatment carefully selected, judiciously varied, and persistently carried out may do much good, and in favorable cases even effect a cure, but the patient must have faith in his surgeon, and be prepared to submit to long continued watching even when better; if the sufferer runs about from one doctor to another his fate is sealed, and he gives neither himself nor his surgeon a chance.

I have great confidence in circumscribed ulceration, in the efficacy of rest in the recumbent position, and in a wholly, or nearly, fluid diet, and I consider milk should be the essential element in such a diet. I could relate many cases where I have really cured these cases with very little medication, occasional slight applications of a caustic solution, bismuth, morphia, and gentle regulation of the bowels having fulfilled all the indications. These patients confined to the sofa, and fed almost entirely on milk, often improve in general health, and gain weight. If cod-liver oil can be taken I prescribe it as an aid to nutrition, but it must only be taken in small doses.

When the ulceration is deep, and contraction has commenced, the disease is much more serious, and a very doubtful prognosis should be given; still in all cases a good deal may be done, and hope may be instilled, if only the patient will give up all to treatment for a more or less lengthened period. If patients walk about, stand, sit, and attempt to continue their business transactions, treatment is nearly always rendered inefficacious, one indiscretion may render nugatory a week's labour. In these cases, therefore, rest is even more important than in ulceration in the earliest stage.

Often the ulceration induces such an irritable condition of the rectum, that nothing will be retained, neither any injection, suppository, nor ointment; directly anything is introduced, uncontrollable spasmodic expulsive efforts are set up, and may continue long after the offending matter is rejected; thus great pain is suffered and the part itself damaged. I have found that bismuth and charcoal taken internally will generally soon overcome this excessive irritability.

Subcarbonate of bismuth may also be tried on the mucous membrane itself, by means of an insufflator, this continuously used may soothe the rectum and relieve pain. As a rule I prefer ointments to suppositories or injections. The little instrument, of which a diagram is given, obviates all difficulties of introduction, and I am sure irritates less than other methods of medication ; all kinds of sedatives, opiates, and astringents may in turn be tried. I am very fond of the following formula, and have seen it most efficacious. Bismuth. Subnitratis, ʒij ; Hydrarg. Subchloridi, ϑij ; Morphiæ gr. iij ; Glycerinæ, ʒij ; Vaseline, ℥j ; this is a very sedative application, and sores seem to be benefited by it speedily. Subacetate of lead, belladonna and opium, will be found serviceable ; all sorts of astringents may be employed ; rhatany, friar's balsam, zinc (the permanganate), copper, iron, nitrate of silver, &c. The last carefully used in not too strong solution, is one of the most admirable applications, often inducing in an ulcer a healthy appearance, and causing granulation. The tartrate of iron I also employ for the same purpose. Fuming nitric acid or strong carbolic or chromic acids applied under certain conditions, are potent remedies, they often allay pain and start healing processes afresh, but they are double-edged weapons and must be used with great discretion, and with a distinct object in view. In ulceration when the least stricture exists, bougies may be always employed, but it must be remembered that to do any good, the greatest gentleness must be practised by the surgeon, indeed, pain ought not to be caused, although considerable discomfort must in most cases. The bougie should never be employed of too

large a size; no greater mistake can be made, than to suppose that the larger bougie you can get in the better, keep below the size that can be well borne, rather than at all above it; in the one case good may ensue, in the other, irritation and retrogression is sure to take place; never give a patient an ordinary bougie to use for himself, if the stricture be more than two inches from the anus. I have now seen two deaths occur from patients thrusting the instrument through the wall of the rectum, peritonitis immediately set in, and they expired in great agony. I occasionally, when the constriction is only about an inch, or an inch and a half from the anus, let the patient have a short instrument to pass and wear at night, if it can be done without any severe pain. I employ tubes made of vulcanite which have a collar to which to fasten tapes, to keep them in the bowel, and at the same time, prevent them escaping *into* the rectum, an accident I have more than once seen occur; in one case, indeed, a full sized long bougie entirely disappeared, and could not be reached by the finger in the rectum, its distal end could be felt in the transverse colon; fortunately I was, after a few trials, able to seize it with a pair of long bullet forceps, and withdrew it from the bowel, it may be imagined the patient was not a little frightened. When strictures are slight, not very long but annular, a division in a few places with the knife followed by judicious treatment with the tubes may be very beneficial and even curative. The division I usually make at four points, and I take care just to cut through the induration, and reach the healthy tissues beneath but no deeper; the bowel should be filled with well-oiled lint or wool for

twenty-four hours, and then the tube introduced and worn, only taking it out for the bowels to act, and to wash out the rectum with some antiseptic solution, I prefer Condy's fluid very dilute or thymol. I am of opinion that carbolic acid is always too irritant, if strong enough to be of any service.

Some four years ago a young gentleman, æt. 19, came to me with an annular stricture about an inch from the anus; division as I have described, the use of the tube, and general treatment cured him in six months, and he has continued quite well to this day.

Continuing to consider the progress of these cases, we come to the more severe kind where the ulceration is very extensive, the constriction so bad that there is great difficulty in obtaining any passage through the bowels; no action taking place without the use of strong purgatives, or, on the other hand, incontinence of fæces may worry out the patient's life. The lower part of the rectum will be now no more nor less than a passive tube, all elasticity has gone, and liquid fæces run away, or there is a perpetual leaking of semi-fluid motion; the condition of the sufferer is something terrible, around the anus large hard growths exist, and fistulous passages pass up the bowel opening into the ulceration, most frequently below but sometimes above the seat of constriction. These fistulæ may be divided, and some temporary relief afforded. If in such cases the fistulæ run high up the bowel, and the tissues are very dense, I much prefer the elastic ligature to the knife; in fact I now never employ in such a case the latter; the bleeding is sure to be exceedingly free at the time, and great difficulty is found in

arresting it, as the vessels can neither retract nor contract. The only patient I ever lost from hæmorrhage after an operation upon a fistula was a young and delicate man sent to me from Ireland with stricture and numerous fistulæ, the whole tissues being brawny in the extreme. At the operation I had great difficulty in arresting the bleeding, but concluded that all was safe; unfortunately, in the evening there was a recurrence, and my colleague, Mr Goodsall, succeeded in stopping it with plugging and styptics; however, on the third morning a sudden gush took place, and the man died at once. The induration of the parts prevented any ligatures being applied; they cut through, or the vessel was too deeply sunk to get at.

In these later stages of ulceration no good is derived from constitutional treatment. Mercury in any form does harm. Iodide of potassium is unavailing. Tonics to maintain appetite, and give tone to the nervous system may be used, and always cod liver oil, which one may look upon as concentrated nourishment; one need not say good feeding with nutritious, but not bulky food is required. I shall discuss more fully lumbar colotomy in my chapter on cancer.

Stricture of the rectum without ulceration is a somewhat uncommon affection. We have seen how stricture takes place after, or in conjunction with, ulceration. The thickening of the tissues and the consequent contractions which result from the attempts at repair must narrow the canal, but it is not so easy to see how or why a stricture should occur *per se*. The rectum is a tolerably large tube (not like the urethra, where a very little deposit is sufficient to nearly block up the passage), and a considerable

thickening might take place without causing any great obstruction.

We may, perhaps, suppose that inflammation of the submucous tissue produces a deposition, and, besides this, or resulting from this, there is spasm. I am sure this is often the case; I have seen strictures of the rectum so tight that I could not get the end of my little finger into them, but when the patients were well under the influence of chloroform I have been able to pass one or two fingers through easily.

How inflammation and thickening is set up in the connective tissue of the bowel is difficult to say. It may be that straining to evacuate the contents of the bowel forces down the upper part of the rectum into the lower, causing an intussusception, it thus gets within the grasp of the sphincter muscles, and this I have often thought may be the starting point of the irritation.

I have in some few cases had a suspicion that the long-continued pressure of the child's head in labour has been the exciting cause, bruising of the bowel having perhaps taken place.

Possibly, also, inflammation may be induced by the passage of very dry and hardened fæces, though doubtless this condition may obtain for years—as it often does in old people—without producing stricture.

I have seen one case in which the frequent, and perhaps rather rough, use of an enema pipe produced a stricture. This occurred in an elderly lady who had for years given herself an injection daily. She did not at first suffer from constipation, but she had been recommended an enema, and at last she could not get an action without it. I thought in this instance it was

not improbable that the passage of the bone tube had been the exciting cause of inflammatory thickening of the bowel.

It may perhaps be said that I have *assumed* inflammation to be the cause of the exudation into the wall of the bowel. I must confess that I have, for I have rarely been able to detect decided symptoms of inflammation of the rectum preceding stricture. I have constantly asked patients whether they have at any time suffered from pain, burning, diarrhœa, dysentery, or discharge of matter from the bowel, and the reply has most usually been in the negative. On the other hand, I have seen cases of long-continued proctitis, especially in aged people, not followed by stricture. The coarse symptoms of stricture have been described, straining and difficulty in discharging the motions. You see mentioned in some works that the stools are thin, long, and pipe-like. According to my experience this is not usually the case in true stricture; spasm of the sphincter, enlarged prostate gland, and tumours of the pelvis, much more frequently give rise to flattened and thin motions. The most characteristic feature in my opinion is the passage of numerous very small broken pieces; the fæces having no actual form, often looseness alternating with this lumpy condition. The discharge in simple stricture is like the white of an unboiled egg or a jelly-fish, passed when the bowels first act. There is no coffee-ground looking discharge so constantly seen in ulceration, nor is there the morning diarrhœa which we get in that complaint. There is very rarely any pain experienced in the bowel itself, the symptoms are generally referred more or less to distant parts, notably the penis, perineum,

bottom of the back, the thighs, beneath the buttocks, and occasionally the stomach. Fortunately strictures of the lower bowel are generally within reach and sight, but occasionally they are found high up in the sigmoid flexure, or still more distant from the anus. In these cases it becomes a matter of great importance to ascertain the situation of the obstruction, but this is a question I shall not enter upon here.

A stricture of the rectum resulting entirely from muscular spasm is what I am very disinclined to believe in. I do not deny that such a condition may be found, but to me it appears to be very improbable, and I feel confident that in many of the supposed spasmodic strictures there is really no constriction at all. The operator has been misled by the bougie catching in a fold of the gut or against the promontory of the sacrum. If you are in doubt about the existence of a stricture you should use a long and very elastic enema tube and inject fluid as you pass it, so as to distend the gut and remove any intussusception of the upper part of the rectum. This condition, I think, has often been mistaken for stricture, as, unless the bougie goes *directly* into the *aperture* of the descended portion of gut, it gets into the sulcus at the side, which is a *cul-de-sac*, and the instrument cannot be made to pass. I have satisfied myself on several occasions that this has been a source of error.

For some years past in exploring the rectum for stricture I have used vulcanite balls of different sizes, mounted on pewter stems with flattened handles; they are easily bent into any form, they will even bend in the bowel and by their use, as in exploring the urethra, you may make certain of detecting a stricture. For

when they pass, on gently withdrawing them, the ball comes suddenly, and perhaps with some difficulty through the constriction. Its length also can be approximately measured.

In cases of stricture when there is great spasm with a small amount of organic disease, much good may be done by the use of bougies. It is well to inject into the bowel before passing the bougie, some sedative, as opium or belladonna with oil, and to use a stiff lubricant on the bougie (such as blue ointment), if the instrument cannot be quickly passed ; it is better not to persevere, as irritation will be set up and damage done ; once set up the spasm and all your endeavours may be frustrated, the stricture must as it were be surprised. I do not like any forcible dilatation in these cases, you may tear or split the stricture with Todd's dilator, but you are more likely to get ulceration than permanent benefit to the stricture. On the same principle I should not cut even in the slightest degree any constriction where no ulceration existed, save in cases I will describe. If the stricture is high up, the use of Todd's dilator is dangerous. I have seen profuse hæmorrhage follow its use, and the bowel might be torn to the injury of the peritoneum, especially in women.

In these cases I am also of opinion, that retaining a bougie or tube is not usually advantageous ; you may produce ulceration, and if this should be done you will perhaps irretrievably damage your patient. Gentle dilatation, very gradually increasing the size of the instrument, is the only safe treatment. The conical bougie is a good form, as gentle pressure induces this to enter the stricture more easily, but you should never

cause pain, and you may be sure if blood or mucus passes after your manipulation, your patient will have little to thank you for.

I used to think that twice in the week or at most three times, was as often as the instrument ought to be used, but in obstinate cases its daily use has in my more recent experience been followed by greater permanent good. Still, in this matter every case must be judged on its own merits, bearing in mind the axiom "never irritate."

There are met with, but fortunately rarely, some annular and semicircular strictures which feel as if a cord were tied round the bowel, and so resilient are they that if dilated ever so much, return in the shortest space of time to their old contracted condition, it is in these alone that I consider division advisable, and then the cuts should be only superficial and dilatation commenced the day after.

When a stricture is well dilated the patient generally experiences the greatest amount of relief, no more straining at stool; comfortable good-sized motions are passed, and many anomalous symptoms vanish. One drawback is the rapidity with which all strictures may return; the relief afforded is even much less durable than that obtained in stricture of the urethra; and the patient should be warned never to go long without having the bougie passed, and certainly, directly any of his old symptoms recur, to at once obtain treatment; bearing this in mind, but little fear is to be entertained of a dangerous relapse.

CHAPTER XVIII

CANCER OF THE RECTUM

THERE are very few parts of the human body which may not be attacked by cancer, but some are more frequently affected than others, and the rectum is one of the favourite sites of this disease. Cancer is, in the vast majority of cases, a fatal disease, and when the rectum is the part affected it usually runs its course in less than two years. In many instances the duration of life is much less. I have watched a case of encephaloma, which terminated fatally at the end of four months, from the earliest symptoms of its invasion. Colotomy was performed by me when I first saw the patient, two months before death; but in my opinion it did not delay the progress of the disease one day, although it afforded relief from excruciating pain. On the other hand, I have seen a case of scirrhus on the anterior wall of the rectum, in which the patient lived about four years and a half. I will briefly record the case.

A man, of not at all unhealthy appearance, came under my care at St Mark's Hospital in the year 1865. He had suffered more or less from symptoms of obstruction in the bowel for five or six months. An examination per anum detected a hard, solid mass, appearing to rise from the neighbourhood of the

prostate gland; it blocked up the whole rectum; the surface was irregular, but not ulcerated at all. I thought it might possibly be a hydatid, although no fluctuation could be detected; a long exploring trocar thrust into it did not reach any fluid. He had suffered entire constipation for twenty days, and his symptoms were so urgent that I at once performed colotomy. He returned home in six weeks very well, and he lived for four years and a half; dying at last from the extension of the disease to the bladder and consequent exhaustion.

Cancer is commonly a disease of middle life, but I have seen encephaloid rapidly fatal in a boy of seventeen; and some years ago there was in St Mark's Hospital, under the care of my colleague Mr Gowlland, a boy, not thirteen, with cancer of the rectum. Scirrhus and epithelioma are not very uncommon in old people, and in them usually runs a very slow course, which may be accounted for by the fact that in old persons the vital forces are sluggish.

It has been said that cancer is more frequent in women than in men. As regards the rectum this is directly the reverse of my experience. In my statistics many more men are victims than women.

I am in accord with those who do not consider cancer as an hereditary malady; it is true that there are very few families in which cancer has not appeared, more or less remotely, but that is only because cancer in some form is so common in human beings. Although I always put the question, it has comparatively rarely happened to me to find the father or mother, or even grandfather or grandmother, has suffered from the disease. Often uncles

or aunts, or brothers or sisters, and still oftener cousins and more distant relations; but that does not affect the question.

Some varieties of cancer may in their early stage be only and purely local; but I am afraid that stage is of very short duration, and is hardly, certainly not practically, true of the more malignant forms. By practically true I mean that as soon as a growth exhibits itself, so as to be noticed by the patient, the disease is constitutional, the system is infected.

As a rule, cancer of the rectum is most horribly painful, the function of the part enhancing the suffering; but I have seen patients in whom there has not been excessive pain, particularly in the early period. In the more advanced stages of the malady the pain often becomes unremitting, from the fact that many nerves become involved, being pressed upon or stretched, and the neighbouring organs thus become seats of separate pain, even if they are not actually touched by the growth. I had a patient with cancer, which, commencing in the rectum, involved the whole cavity of the pelvis, and pain down the right sciatic nerve was one of her most distressing symptoms.

The forms of malignant disease usually described are epithelioma, scirrhus, encephaloid, colloid, and melanosis. I think I have placed them in their order of frequency. I have never seen a melanotic tumour of the rectum. I have seen many colloid tumours, but I am not sure that encephaloid may not be colloid, or pass into it. From my own clinical observations I should be inclined to say in cancer of the rectum it is

often very difficult, if even possible, to make any distinction between epithelioma and broken down scirrhus. I have seen cancers of the rectum stony hard at one part and quite soft at another.

Malignant growths are commonly found seated within three inches of the anus, the most rapidly dangerous being higher up about the lower portion of the sigmoid flexure. When cancer occurs near the anus it may extend upwards beyond the reach of the finger, but more frequently it does not, and the whole extent of the disease can be ascertained. It is but rare that any form of cancer commences at the anus itself—I have seen some cases of epithelioma, but comparatively few—nor as a rule does the cancer come gradually down to the anus ; in the very later stages it may, but this is the exception. When it does come down to the anus it is generally mistaken for piles, and caustics are applied, to the aggravation of the patient's suffering. There is something peculiar about the feel of cancer which the practised finger rarely mistakes even for simple indurated ulceration. I think it is many years now since I mistook the one for the other. There is also a peculiar odour which one cannot describe, but which once recognised will rarely be forgotten. In my opinion the odour is pathognomonic.

Scirrhus and encephaloid commence, according to my clinical knowledge, in the submucous tissue, and the mucous membrane may for a time remain quite smooth and unaffected though adherent to the growth beneath.

In epithelioma the mucous membrane seems from the first to be the seat of the disorder, and even when

the growth and thickening has become considerable the whole will be found freely moveable over the structures beneath. In scirrhus and encephaloma this is not the case; very early in the disease it has spread more deeply, and in many instances seems very immobile.

Scirrhus is often found as a hard tumour seated in the rectum over the prostate gland, and although it may not have arisen from the gland itself nor invaded it at all, yet it is remarkably adherent to it. In a case in which I removed a scirrhous nodule, about the size of a large cherry, from this situation I was obliged to dissect off, with the growth, the fibrous capsule of the prostate itself. On microscopic examination the tumour was declared to be true scirrhus by my friend Dr Wm. Ord. The patient recovered from the operation, and I have not heard of him since, but I should expect the growth will almost certainly recur.

The more malignant forms of cancer do not exist very long in the rectum before they poison the blood generally, and cause secondary deposits in the lumbar glands, groin, liver, &c. The aspect of countenance which so often attends the cancerous cachexia is very usual, and seen earlier in cancer of the rectum than elsewhere. In cancerous growths high up vomiting, frequent and severe, is an early symptom, even when not much obstruction exists. The onset of cancer in the rectum is often marked by very trivial symptoms, so the disorder comes upon you as a surprise. A patient may come into your consulting-room complaining of no more than a little uneasiness in the bowel or a slight morning diarrhœa. He may look thoroughly healthy and strong, and may really think

himself, save for the slight local trouble, perfectly well, yet on making an examination you find the disease advanced beyond all possibility of doing any good.

An elderly Scotch gentleman was sent to me by Dr Nisbett, of Gravesend. To all appearance he was the wiry healthy-looking Scot. "Hard as nails" he said he was, but he was a little troubled by irregular action of the bowels—sometimes costive, sometimes loose—and he occasionally passed a little blood. On examination I found what I really did not expect, a hard scirrhous mass in the rectum, extending higher up the bowel than I could reach. By sheer power of constitution he lived a little more than twelve months from that interview.

Mr. Wilton, of Sutton, sent a gentleman, æt. 34, to me. He was suffering from some pain in the back, with a weary sensation after exertion; had small losses of blood at stool and rather frequent motions, always in the morning and sometimes at night. His idea was that he had piles. On examination I found an epithelioma commencing just within reach of the finger, and extending, as I found by careful sounding, at least, two inches higher up. The growth was causing some contraction of the bowel.

When cancer attacks the uppermost portion of the rectum or the sigmoid flexure, the disease generally runs a more rapid course and is much more dangerous; indeed, sudden death is not uncommon, as total obstruction takes place quickly, and unless colotomy is promptly performed the intestine gives way above the obstruction, and death ensues. I have seen a good many examples of this, and always warn

the friends of what may happen.* Cancerous stricture of the upper part of the sigmoid flexure or the descending colon is not so dangerous, although the obstruction may be total. I saw with Mr Sutton Sams, of Lee, an elderly lady, who had total obstruction high up the bowel, and yet lived for more than eight weeks. Another case I saw in consultation with Mr John M. Burton, also an elderly lady, who had a similar obstruction and lived for many weeks, though she had constant vomiting. Many cases of this kind have come under my notice where patients would not submit to colotomy. I need not say that their suffering is very great and loudly calls for surgical interference. At the same time the difficulty of ascertaining the precise seat of the obstruction, in many instances, ties the surgeon's hands.

I now come to the consideration of a very important but unsatisfactory part of my subject: viz., What can one do for the relief of these terribly unfortunate persons?

I have never seen any benefit result from the application of caustics to growths within the bowel, but when a cancerous mass protrudes, which, however, is a somewhat rare occurrence, I have relieved pain and got rid of a good deal of the growth by using the arsenite of copper with mucilage as a paste, this destroys rapidly without increasing the suffering at the time; it does not cause bleeding, and, as far as my experience goes, it is free from danger.

The treatment in the majority of cases of cancer

* Sir James Paget related a case to me where very little was thought to be the matter with the patient until nine days before entire obstruction took place and death.

still resolves itself, for the most part, into an attempt to assuage the suffering of the patient. Pain is generally mitigated by the recumbent posture, and good, easily assimilated, nourishing diet, with alcohol in moderate quantities. All varieties of sedatives may be used with benefit externally and internally, and when one drug loses its effect another should be substituted. Opium in its several forms is the most effective agent we possess. It may be used as a suppository, in which case the best formula is morphia with glycerine and gelatine (three of glycerine to one of gelatine) as this melts very soon, and does not feel like a foreign body in the sensitive bowel as suppositories made of cacao butter so frequently do; injections of Battley's sedative, nepenthe, or black drop in starch, sometimes afford great relief. Solid opium by the mouth is a great favourite with me, but the objection is that the stomach gets irritated, the appetite fails, and the bowels are confined. Probably most patients obtain the greatest comfort from hypodermic injections of morphia, but no opiate can be used long without inducing a state of mind almost as unindurable as the pain of the disease, and therefore great care should be taken to husband the remedy as much as possible, never using a larger dose than is absolutely necessary, bearing in mind that you may have to rely upon it more or less, even for months. I have had many patients who from small beginnings got to inject from eight to fifteen grains of morphia in the twenty-four hours, and the condition of mind of these patients was really fearful. Many persons have told me, who had injected such large doses, that they preferred the most excruciating pain to the mental distress the morphia

produced, and have even of their own accord left off the drug and endured the physical suffering. When cancerous growths approach the anus considerable relief may be obtained by dividing the sphincter muscles; defæcation is thus rendered easier, and no possible compression can be exercised. Usually, as I have said when speaking of stricture, a cancer of the upper part of the rectum paralyses the sphincters, doubtless from pressure on nerves, and the patient is not able to retain the motions, especially if they are at all liquid. When diminution of the calibre of the bowel is induced by cancer near the anus Professor Verneuil has proposed free division of the gut in the dorsal median line, or even the excision of a segment of the posterior wall of the rectum. The former operation I have frequently practised; the latter does not commend itself to my mind.

In encephaloma of the rectum great temporary advantage and much relief from pain may be obtained by tearing out the growth by the fingers or a scoop (as the late Professor Simon advocated in cancer of the uterus). I prefer my fingers. You must be bold in doing this, and enucleate the whole growth quickly and resolutely. If you tear away only superficial portions hæmorrhage may occur to a considerable extent, which must exhaust your patient, and no real benefit will accrue.

I had a case under treatment in conjunction with Mr Pinching, of Gravesend, in the person of a member of our own profession. An immense encephaloid growth almost filled up his pelvis, and he came to London to see if I could do anything for him. He was in such a condition that I thought he could not

bear colotomy, but I saw that if I could remove the growth in great part without his losing blood to any extent great relief must follow. Accordingly, assisted by Mr Pinching, I made a free division of the anus, the muscles and fat around which had been so thinned away by the pressure of the growth that it was only like cutting through thin devitalised skin. Only one small vessel appeared inclined to bleed, and this I immediately twisted. I now passed my hand gently into the pelvis, got my fingers well above the growth, and tore it out. A large mass was at once removed. I then continued to remove all I could find, and it came away exactly like brain to the extent of filling a good-sized pudding-basin. I had come fully prepared with subsulphate of iron, the actual cautery, sponges, and wool to have at once plugged had hæmorrhage taken place, but to my astonishment there was no bleeding worth mentioning, and the cavity from which the cancer had been removed was dry and grey in colour with red spots. As a precaution against secondary hæmorrhage I put in sponges powdered with the subsulphate of iron, but there was no bleeding at all. From the day after the operation the patient rallied, lost his night sweats, ate and drank all we gave him, and was able to return home in a few weeks. After this he lived in comparative comfort for two months, then as the growth returned he very gradually died from exhaustion, nearly five months having elapsed since he underwent my treatment. Twice since this I have carried out this plan in a similar manner, and in both cases great though temporary relief followed. I was surprised to observe in the three cases after the removal of the cancerous growths

that the facial appearance of the patients so immensely improved; in fact, they all lost the malignant aspect, and not until the growth gradually returning and with it the poisoning of their blood and tissues did the countenance reassume its worn haggard look. So also in respect of strength, freedom from pain, appetite, and capacity for sleep, the change for the better was remarkable. In this variety of cancer, though colotomy would afford in some degree relief from pain, the abundant cancer elements being still present, poisoning of the general system would continue in full force, and thus extension of the term of life is not obtained, and, indeed, can hardly be anticipated, and in such cases where I have performed colotomy I have found the patients have rapidly succumbed.

Two operations have been practised for the relief of rectal cancer. The one is extirpation of all the diseased portions of the rectum, which, further, is stated by some surgeons to effect a positive cure of the disease in some cases. The other operation is colotomy, lumbar or inguinal, which only professes to relieve pain, and possibly extend the term of the patient's life.

Extirpation of the rectum (as it is frequently termed), broadly speaking, may be undertaken in any form of cancer which does not necessitate the removal of more than four and three quarters or five inches of the rectum in the male and about one inch less in the female. With reservation to greater experience, I should also say that if great adhesions are formed to the sacrum or to the base of the bladder and prostate gland, or to the neck of the uterus in women, the

operation is probably not admissable, and certainly not desirable. Again, if any enlarged glands exist in the inguinal or lumbar regions the operation cannot be recommended; lastly, I should say the patient ought not to be so exhausted as to render it doubtful whether the necessarily rather free loss of blood would endanger, to a great degree, the patient's life. The length of the rectum from the anus which may be removed without opening the peritoneal cavity differs in individuals, and the conclusions arrived at by measurements of the dead body or by taking plaster casts of the reflections of the peritoneum are fallacious, and must be taken as an approximation to the truth only. In a female patient on whom I operated, Douglas' pouch was only two inches from the anus. In a male full five inches of the rectum were removed, and the peritoneum never seen; and in another male, in which not more than three and a half inches were cut off, the peritoneum was opened and a coil of intestine protruded. In operating, a point of considerable importance is to divide the levator ani muscle thoroughly and dissect it carefully upwards, by which means you get the rectum to come readily down, and in making the necessary traction on it you do not draw the peritoneum down with it. Another point worth remembering is that the meso-rectum is developed more in some subjects than in others and descends lower than the upper half of the rectum. Care must be taken in using the knife close to the sacrum, as you may easily divide the trunk of the middle hæmorrhoidal artery, when severe bleeding will take place, and difficulty may be experienced in arresting it. This has occurred to me, but I was able

to seize the vessel and secure it quickly. From the full and sudden rush of blood, however, I felt convinced that a weak patient might readily die on the table. It is not my intention to enter into the history of the operation of excision of the rectum, nor shall I describe the various ways in which it may be performed; but I beg to refer the reader who wishes the fullest information on these subjects to the able and exhaustive work of Dr Marchand, entitled 'Étude sur l'extirpation de l'extrémité inférieure du Rectum.' I will only here mention that Faget, in the year 1739, excised the rectum for cancer, that after this the operation remained in abeyance until 1828, when it was revived by Lisfranc, who performed the operation in several cases successfully. At a recent date comparatively it has been frequently undertaken by both French and German surgeons, and with such good results as to establish the operation on a reliable basis. The Americans and ourselves have brought up the rear; possibly we are more cautious and have had our doubts as to the great benefits claimed for it by our foreign *confrères;* certainly we are justified in discounting such statements as Dieffenbach's, who says he had thirty cases of successful extirpation of the rectum, the patients living many years after the operation. We have also felt incredulous as to the advantage derived from cutting out the rectum, a portion of the urethra, prostate gland, and base of the bladder, as did Nusbaum, who gravely assures us that the patient recovered all his functions and lived for three years.

My own experience of removing cancerous growths from the rectum is not great. I find that I have

excised segments of the bowel by knife alone, or combined with the écraseur or ligature (elastic and inelastic), in thirteen cases, and in ten patients I have removed the rectum in its whole circumference, the largest portions taken away being in two cases five inches and five inches and a half in length respectively.

I shall not enlarge on my operations upon segments of the rectum, because the question of the day is, Can one cure a patient who has cancer—say epithelioma—by excising the whole of the diseased portion of the rectum?

Speaking generally of partial removals of the circumference of the bowel, I must say I consider the operation unsatisfactory. In all my cases which I had the opportunity of observing for about a year, either a return of the disease took place in the rectum, or the glands in the groin became affected, or there ensued disease, probably cancer, in some internal organ, mostly the liver. I find seven out of my thirteen cases died within eleven months of the operation, and in three there was a return of the growth in the rectum. This may, of course, be attributed, and I think rightly, to my not having totally extirpated the local disease; but in four cases the disease did not return in the bowel, but in the glands. One of my patients died suddenly two days after the operation from syncope on getting out of bed. Another died on the fourteenth day from erysipelas. The four remaining cases recovered from the operation, but I have no knowledge of the ultimate result. In one case, a patient of Mr George Ord, the growth did not return until after one year and five

months had elapsed. I had therefore arrived at the conclusion that partial removal of the rectum was an operation which could not be very strongly recommended. Another objectionable feature in my cases was, I found, contrary to the experience of some of my professional brethren, that the patients had incontinence of fæces when a large portion of the sphincters was removed. All my cases were not epithelioma, some were scirrhous nodules, as in the case I mentioned where the growth was situated over the prostate gland.

Case 1.—My first excision of the whole circumference of the rectum was performed at St Mark's Hospital on the 2nd of March, 1874. The patient was a woman, forty-seven years old, who was sent to me by Dr Thomas. She was a widow, with a family; she did not look very unhealthy, and was fairly nourished, but she said she had become thinner. Six months back she had been operated on in the London Hospital for fissure, but she did not get well; soon after the operation the pain was as bad as before it. There was constant gnawing pain in the anus much increased on defæcation, and she was obliged to strain at stool. *Examination.*—The anus was patulous, but just inside was a contraction formed by hardish ulcerated growths which nearly encircled the bowel. The extent upwards was not more than an inch. There was no history of syphilis nor any symptom. I had no hesitation in pronouncing the disease to be epithelioma, and I removed it by a circular incision around the anus including the sphincter. I dissected without difficulty the bowel up as there were no adhesions, drew the gut outside, and cut it off with scissors. I took care to have the bowel held well out with a vulsellum. There was smart bleeding, but four vessels being tied it all ceased. I then joined the stump of the rectum to the skin with six wire sutures. On the day after the operation there was much swelling, and on the day following there was lividity of the skin and great tension, so I was compelled to remove all the sutures, and a quantity of pus was discharged and the parts widely gaped. I ordered charcoal poultices and injections of Condy's fluid. After a few days the wound assumed a healthy appearance, and the patient made a good recovery. I was much astonished at the way in which the rectum gradually grew downwards and joined the skin, forming an excellent cicatrix. Before leaving the hospital she had some power over her motions. I watched this patient for sixteen months, following her to a

distance rather than lose sight of her. No disease returned in the rectum, but in eleven months she had abdominal symptoms; emaciation was very rapid; she suffered much, and died sixteen months after the operation, having kept her bed for five months.

Case 2.—A man, æt. 36, was taken into St Mark's Hospital, and operated upon by me on the 26th of October, 1874. He had suffered from hæmorrhoids, and had been under my care fifteen months before; he continued well until three months ago, when he began to suffer pain in the rectum, and passed blood and mucus; the bowels were almost always relaxed and he had but little straining, but he had incontinence of fæces. The patient was unhealthy looking, and had lost flesh and strength. On *examination* a cancerous growth was found encircling three fourths of the rectum on its dorsal surface; the anterior portion seemed uninvaded, nevertheless, I thought it advisable to remove the gut in its entire circumference by an elliptical incision. A silver catheter was passed into the bladder to steady the urethra. The part removed was about two inches in length; no difficulty presented itself in the operation. I did not put in any sutures, but filled the wound with wool soaked in weak carbolised oil. No bad symptoms followed, and the parts were quite healed in four weeks. This patient returned to me three months after the operation with contraction of the anal orifice. I made an incision to correct this, and he had no trouble afterwards. Seven months subsequent to the operation the cancer appeared higher up the rectum; he refused any further surgical interference. After a little time I lost sight of him, and, therefore, do not know how long he survived. For four months after the operation he was quite comfortable, had no incontinence of fæces, and was able to do his work.

Case 3.—A man, in rather poor circumstances, but who would not come into the hospital, was sent to me by Mr Slater, of Canonbury. I saw him first in January of 1875. He was a spare man, about fifty. He had suffered pain for some months in the bowel; it was pretty constant and much aggravated on action of the bowels. He felt weak and had lost much weight. On *enamination* I found a rather large cancerous growth two inches from the anus; it did not involve the whole circumference of the bowel; it was moveable in all directions. I could easily reach its upper border, and bring the growth close to the anus. I proposed removing it, but the man declined. In March following he came to me again, saying he had suffered so much that I might do what I liked to afford him relief. *Exanination* showed that the cancer had approached much nearer to the anus, but there still remained a zone of healthy mucous membrane between the growth (which I believed to be epithelial), and the anus. There did not

appear to be any important adhesions except dorsally; anteriorly very little amiss was detected, and the gut was quite moveable. I determined on excising the growth, and to leave the external sphincter by carrying my knife around the bowel in the space between the two muscles. I discovered when I had made this incision, from which blood flowed plentifully, that I could not safely remove the growth, so I made a deep dorsal cut in the median line nearly to the coccyx. I was delighted to find the amount of room this gave me, and how it rendered the operation comparatively easy. In all my subsequent cases I have commenced my operation by cutting from the point of the coccyx well up into the bowel, a proceeding so strongly recommended by Prof. Verneuil. No serious obstacles were found, and I ablated about three inches of the rectum cutting well free of the growth. I attempted to bring the stump of the rectum to the skin by sutures, as I hoped thus to save the external sphincter which I had preserved, but the tension was too great, and I, therefore, only filled the wound with sponges soaked in a weak solution of chloride of zinc. The after progress on the whole was satisfactory but slow, and the wound took seven weeks in healing. This patient died fourteen months after the operation. He was in comparative comfort for twelve months, and had fair command over his motions, unless they were liquid. The disease did not return in the rectum, but the glands in the groin became affected, and possibly also some internal organs. He suffered much pain towards the last.

Case 4.—A gentleman, æt. 60, came to me from the country saying he was suffering from stricture of the rectum which had troubled him for about eight or nine months; he had consulted several eminent provincial surgeons, and had used bougies with temporary benefit. He was thin but fairly strong and active; the expression of his face was healthy. On *examination* I found his bowel obstructed by a growth which quite surrounded the gut; it was ulcerated in parts; it commenced about an inch from the anus, and the zone measured about two inches at most in length; it was freely moveable in all directions; no glandular complication could be detected. I advised its immediate removal. He went home to consider the matter, to consult his relatives, and one of the surgeons he had seen. He returned to town in a few weeks, and I operated upon him on the 26th of January, 1876. I operated exactly as in the last case, save I made the dorsal incision the preliminary step. In this case the bleeding was very free, and I liberally used the actual cautery to the cut surface of the rectum as well as to other parts. The wound was filled with sponges steeped in a weak solution of carbolic acid, and I introduced a tube into the rectum in order that wind might escape, the retention of which had much troubled my last

patient. The wound healed kindly. There was no fever after the first forty-eight hours, and the patient suffered remarkably little. In five weeks he went away quite satisfied, and I expected a good result; but I was disappointed, as in five months he came to me with a return of the growth quite near the anus, involving the scar and the skin; it was a hard lump the size of half a walnut, and I advised him to let me cut it out; he acquiesced and I removed it freely, but did not take away the whole circumference of the gut. This I afterwards regretted, as I saw him in about three months again with much more growth at the anterior part of the rectum. He was now weak and greatly broken in health, and desparing of relief he refused any more active treatment. I heard from his friends that he died just eleven months and a half from the first operation.

Case 5.—I saw with the late Dr Daldy a single lady, aged forty, who was affected with what she supposed to be piles. She lost blood in small quantities, had frequent diarrhœa with incontinence of fæces, and there was a discharge of sanious ill-smelling mucus. The pain was not great except when the bowels acted. She was fairly nourished, and was going about her duties as usual. On *examination* I found a growth in the rectum one and a half inches from the anus, and extending but little upwards; it was hard and rough to the touch in some parts and pulpy in others; it was situated principally on the anterior part of the bowel, but extended laterally nearly to the sacrum; it was most adherent to the vaginal wall, and could be felt distinctly with the finger in the vagina, but I thought it did not involve the vaginal mucous membrane. With some misgiving I advised the removal of the growth fearing that I should have to take out a portion of the vagina in order to thoroughly extirpate it. When the patient found that no other course was open to her to obtain relief, and that the danger would probably be increased by delay, she consented to have the operation done. In order to obtain plenty of room I commenced with the dorsal median incision, and made an exceedingly careful and cautious dissection, but I found the growth so intimately connected with the vaginal wall that I was compelled to remove a portion of the vagina full one inch in length by half an inch in breadth. The hole made being elliptical, after having removed all the diseased tissues I brought the edges of the wound together with four iron sutures. I put no dressing in the wound, simply placing a tube in the bowel. On *examining* the growth there could be no doubt that it was mainly epithelial, but there was much warty structure in it which accounted for the roughness I had detected. Fortunately the wound in the vagina healed at once, and the patient made an excellent recovery. This lady I have heard from recently, and she continues quite well (three years after the

operation). This is the best result I have as yet obtained, but it is clear that the growth was only feebly malignant.

Case 6.—A man, æt. 61, was admitted into St Mark's Hospital February, 1877, suffering from epithelioma of the rectum. The disease had existed about three months. There was slight obstruction of the bowel, and he had great pain; he had straining at stool, and there was a constant bloody mucous discharge; he had no incontinence of fæces unless they were liquid; he was a small, spare man, of not unhealthy appearance; he did not think he had lost flesh, as he was always thin; he had always enjoyed good health. On *examination* a hard growth was found commencing an inch from the anus; it encircled the bowel save on the left side which was soft and ulcerated; it extended about two inches upwards; it was fairly moveable except towards the prostate. I operated in the usual manner, save that I used the Paquelin cautery more freely than in some cases, and I severed the rectum with the Paquelin, inserting a plug into the rectum to cut upon. The gut was very adherent to the prostate gland, and took a considerable time to dissect off; the capsule of the prostate was removed, and the vesiculæ seminales plainly seen. Rather more than three and a half inches were removed. I saved the internal sphincter muscle. The peritoneum on the right side of the bowel was opened, and I saw a coil of intestine. A sponge well carbolised was placed against the opening, and the wound was filled with wool soaked in carbolic oil. After the operation the patient had not a bad symptom, and he left the hospital quite well, having gained flesh and improved in appearance. This patient died thirteenth months after the operation. No return of the disease took place in the rectum, but the glands in the inguinial regions were enormously enlarged, and one gland was the seat of fungoid ulceration.

Case 7.—A man, æt. 50, was taken into St. Mark's Hospital in March of 1878, and came under my care. He was a tall, thin man with a somewhat haggard countenance, but he was not weak, and had worked as a carpenter up to his admission. He had suffered for some months—he could not say exactly how many—from trouble in the bowel, the common symptoms of ulceration or malignant disease being present. On *examination* I detected an epithelial growth in the rectum commencing within an inch and a half of the anus, and passing up so high that I could only, by making the patient stand up and strain down, just feel the upper border of the cancer, and satisfy myself that I could remove the whole of the disease. The growth was more than commonly adherent, especially to the left side. A silver catheter was passed into the bladder when I reached the anterior part of the rectum. I made the dorsal incision, and carried my knife around in the interspace between the sphincter muscles. The dissection was very difficult

anteriorly and on the left side, and I had to go very deeply to get all the growth away. I made use of my fingers and avoided the knife all I could. The hæmorrhage was free throughout, but controlable by pressure. Indeed, not a single vessel required ligature; a few were twisted. In separating the diseased portion of gut anteriorly the prostate gland and the vesiculæ seminales were fully exposed. The stump of the rectum could not be brought down to join the skin if I had desired it. For a few days the patient was in a critical condition, the temperature keeping at 104° and a little above, but these symptoms passed off with the establishment of suppuration and the clearing off of some largish sloughs, and he made a good though rather slow recovery. He left the hospital quite well with the gut grown down to the skin, and the whole part as smooth and soft as healthy mucous membrane could be. Eight months after the operation the man had such a contracted orifice to the bowel that I was compelled to take him into the hospital, finding that bougies were of no avail, and divide the anus on both sides. This soon cured the contraction, but I sent him out with a tube to prevent any recurrence of the trouble. I have recently seen this patient, and he keeps very well and is much improved in appearance, and has, moreover, gained weight.

Case 8.—A gentleman, æt. about 60, was sent to me by Dr Wm Ord in October, 1876. He had a nodule of hard cancer in the cellular tissue just inside the anus. It was so moveable and circumscribed that I could not resist the temptation to remove it by a very free incision without cutting out the whole circumference of the bowel. I was confident I had got away all the diseased tissue recognisable by the eye or touch. A microscopic examination showed the tumour to be scirrhous. From time to time I saw this gentleman, and he had no return of the disease until the middle of March, when he complained of discomfort and some pain in the bowel. He had been quite well for one year and five months. On my examining him I detected small nodules in the mucous membrane about two inches from the anus. The site of the old excision was quite healthy. I urged him to allow me to remove the nodules at once, but he consulted some other surgeons, and as they told him nothing could be done as the places were too high up, he declined to allow me to interfere. Some months elapsed before this patient came to me again; finding himself getting daily worse and losing strength and flesh he said he was prepared to submit himself to my wish, but on examining him I found the disease had grown down nearly to the anus, and was almost all round the bowel. Under these circumstances I said that Sir James Paget should decide whether an operation should be done or not, and as Sir James decided in favour of an operation, I performed it in August removing full four inches of the rectum. The growth was now

clearly epithelial, in fact, it was an admirable specimen, as was the first tumour I removed, an excellent specimen of scirrhus. The operation in consequence of the adhesions was a lengthy one and the bleeding very severe, so much so that I used the Paquelin cautery more than I had done before. The peritoneum was not injured. A very large chasm was left, and was filled with sponges soaked in a solution of salicylic acid. Some pressure was required to arrest a general oozing from the large surface. A tube was put into the bowel. The night following the operation the patient had a most severe rigor, and the temperature went up to 104·5°. I thought something serious was about to happen. I took out all the sponges and syringed the parts well with solution of salicylic acid, and administered a large dose of quinine. In the morning the patient was quite comfortable, with the temperature fallen to 99·50.° After this, although the patient was troubled very much by two or three actions of the bowels daily which we could not stop, he made the most remarkable recovery I ever saw. Was able to return into the country fourteen days after the operation, and in less than four weeks the whole chasm was filled, and the bowel grown quite down to the orifice. All that was done to this patient was to wash out the wound by means of a syringe after the action of the bowels. The parts could not be kept sweet or clean, as a perpetual oozing of fæces was taking place. This is only one example out of hundreds I have had that satisfy me that as long as putrid, filthy matters are not retained, *shut up*, in a wound, it will heal well and rapidly, indeed, quite as well as if all the antiseptic treatment in the world had been adopted. In January, 1879, I found this patient had some contraction of the anal orifice. As bougies did not seem to keep it well open I divided one side of the orifice with a knife, and keeping a tube in for a few days all got well. Curious to relate though so much of the rectum was taken away it grew down, and a portion of mucous membrane protruded from the anus; I thought of removing it, but as it seemed to be of no consequence I did not do so. When this gentleman was last seen there was no return of the disease.

Case 9.—In December, 1878, an unmarried lady, æt. 38, came to me from the country. She looked healthy and cheerful, but when her face was in repose there was a sallowness not observable when she was excited, and also an anxious worn expression. She at once told me, in the most matter of fact way, that she had cancer of the rectum, that she had consulted an eminent physician in the country and a still more eminent surgeon in London, and they had told her there was nothing for her but to endure and die. Her friends confirmed her statement. The patient went on to say that for six months her suffering had been very great. She had almost constant pain

at the bottom of the back of a wearying, sickening character, and the paroxysms at and after defæcation were almost more than she could bear. She had fought this off and concealed it as much as possible from her friends, but her life was really unendurable. On making an examination an epithelial growth in the rectum was patent enough. It commenced about an inch and a half from the anus, the mucous membrane nearer the anus being quite healthy. There was no affection of the external parts whatever. The zone of epithelial growth was about an inch in width, and it involved nearly the whole circumference of the bowel. My finger easily reached healthy bowel above the growth. There were no enlarged glands. The growth was readily moveable in all directions except on the right side of the vagina, but I did not think this would render an operation more than ordinarily difficult, indeed, I felt taking the whole case into consideration that it was favorable for surgical interference. I expressed this opinion to the patient, at the same time guarding against a too sanguine view of the case. I recommended that the opinion of some eminent authority should be taken without the patient saying whom she had previously seen. The gentleman she consulted endorsed my opinion. When, therefore, proper arrangements had been made, special care being taken that my excitable patient should have nothing to worry her, I performed the operation. The adhesions were more than I expected, and in dissecting away the growth from the right side of the vagina the peritoneum in Douglas' space was opened, and a coil of intestine was seen. A sponge carbolised was immediately placed against the opening. There was very moderate bleeding. I used Paquelin's cautery to separate the diseased portion of the rectum, where I found some large vessels existed, the rest I cut off with scissors. The operation took just forty-five minutes in its performance. The ether had been stopped, and the patient gave evidence of recovery from the anæsthetic by moving, but when placed in bed she was found to be still insensible. After a very few minutes the nurse who was sitting by her called my attention to her appearance, and I saw that she was very pale and slightly blue in the face. The breathing had ceased, and her pulse could not be felt. Her head was lowered and artificial respiration was at once commenced by my friend, Mr Carr Jackson, and was continued by that gentleman and myself for two hours and a half. During this period we several times thought she was dead, as immediately the artificial respiration was remitted no natural breathing took place, and the heart ceased to beat. On resuming the artificial respiration the heart feebly responded, and the face became less deadly pale. The head was all the time kept low, and my battery being obtained we were ready to use it if required. Very gradually, to our great joy, natural breathing commenced (though at first it was exceedingly shallow), and the pulse

could at times be felt at the wrist. At the end of the anxious two and a half hours the breathing was fairly restored, and the heart beat regularly though slowly and very feebly. At 10.30 the operation was concluded; at 4.45 she suddenly awoke to consciousness, and was able to take some milk with egg and brandy. After this she rallied, but at 11 p.m. she expressed herself as feeling very exhausted, and was restless and thirsty. Her temperature was 100·5°, and the pulse 104. She was quite warm all over, her mind was perfectly clear, and she was not in pain. She took fluid nourishment freely. On the following morning I found she had slept but little during the night, was restless and felt general malaise with great thirst. She had passed a quantity of black urine like a strong infusion of black tea, the pulse was 99, and the temperature barely 100°. She had taken during the night plenty of fluid nourishment, Liebig's cold soup, milk with egg and brandy. There was no sickness, no abdominal tenderness, and she experienced but little pain in the wound. She was troubled with flatulence, but passed wind freely from the bowel. I removed all the sponges from the wound, it looked healthy and quite sweet. I replaced a sponge which had been steeped in a solution of salicylic acid against the spot where the peritoneum had been wounded. She was not exhausted after the dressing. During the day she improved, but at night she was very low, more restless, but not in pain. She complained of a tightness in the chest and occasional spasmodic pains in the left side. Auscultation did not detect anything wrong with the lung. She was still flatulent, but wind passed in both directions, and there was no distension of the abdomen nor tenderness on pressure. She had taken nourishment fairly. There had been no vomiting. The temperature was 100°, and the pulse 94. I was summoned hastily at 5 a.m., and found she was dead. She had taken some nourishment a few minutes before her death; she told the nurse she felt very ill, became suddenly pale, and died; forty-three hours after the operation. An *examination* was made eleven hours after death by Mr Jackson and myself. All the organs were quite sound. There was no pneumonia nor pleurisy. The heart was small, healthy, and contracted. There was not a trace of lymph or peritonitis, and no fluid in the abdomen. The wound in Douglas' space was firmly united, and the intestine lying against it was not even congested. There was one small patch of congestion at the pyloric end of the stomach. I was very anxious about this patient from the first, the syncope and coma were grave matters, and she never thoroughly rallied after the operation. Syncope, I presume, was the immediate cause of death.

Case 10.—A patient, æt. 52, was sent to me at St Mark's Hospital by Dr Evan Evans; he had been more or less ill for fifteen months

supposing he had piles. He was a tall, thin man, with an unhealthy looking face; he had lost much flesh, and was not very strong. I saw outside the anus a ring of tabs of skin discharging ichorous matter, and inside the anus several large internal hæmorrhoids, which were very vascular and came readily outside when he strained. From the piles an epithelial growth extended up the rectum for at least three and a half inches. It was adherent to the prostate gland and urethra in front, and on the right side the growth extended higher up than on the left, but I could ascertain the whole extent of the disease, and saw no insuperable difficulties to its removal. Accordingly on the 13th of January I operated, cutting very free of the anus in order to get rid of the external flaps of skin, and also to avoid wounding the hæmorrhoidal vessels which I knew were large. The dorsal incision owing to the piles bled unusually, indeed, throughout the operation the bleeding was severe. A silver catheter passed into the bladder, and steadied by Mr Goodsall aided me much in the delicate dissection of the growth from the base of the bladder and the urethra. The parts were so adherent on the right side that I made a wound in the peritoneum, but no coil of intestine came through. In dissecting the growth from the sacrum, where also it was more firmly adherent than I anticipated, I came on the meso-rectum and wounded the middle hæmorrhoidal artery from which the rush of blood was so great that had I not very rapidly seized it the patient would have died on the table. The house surgeon administering the ether was immediately aware of the loss of blood, as the pulse failed. Rather over than under five inches of bowel were removed. A carbolised sponge was placed against the spot where the peritoneum was wounded, and the cavity which was very large (looking as if the whole interior of the pelvis had been scooped out), was also filled with carbolised sponges. On the day after the operation the patient was doing well, had passed a fair night, taken his nourishment, not vomited, had a tranquil countenance, and was cheerful. The abdomen was soft and undistended; there was no pain on pressure save near the right iliac region which was rather tender. The next day the sponges were removed, and the wound carefully syringed out with diluted Condy's fluid. There was no sloughing, and the wound looked satisfactory. On the fourth day after the operation he was attacked with a severe rigor followed by very high temperature and sweating; symptoms of acute peritonitis set in, and he died on the fifth day. A post-mortem showed acute peritonitis all over the abdomen. Lymph was found between all the coils of the intestine, and a purulent fluid existed in the pelvis. The kidneys were not quite healthy. This patient had no serious symptom until the rigor, indeed, a few hours before he felt particularly comfortable, and I thought, on the whole, well of him. A trace of albumen had been found in this man's urine.

While writing this I have another case of excision under treatment which bids fair (this being the seventh day) to do remarkably well. In all my cases at the end of the week from the operation I have felt that the chief dangers were over.

The method of operating employed by me is that which has found most favour with the French authorities. The deep dorsal incision I really consider the "key" to the operation. It gives you plenty of room, which is essential if you have to remove any considerable length of the rectum, and so get fully above the growth. Further, it saves much loss of blood, as it enables you to secure the vessels with rapidity and certainty. Lastly, it forms a deep drain or channel through which all obnoxious matters can freely escape. It is the retention of morbific particles which is dangerous; let them all run away as they are generated and you may defy pyæmia without any antiseptics. In saying this I am not insensible to the advantages of these chemicals when you cannot get deep drainage.

In operating on the male I always have a silver catheter passed into the bladder, the assistant hooks it well up under the pubic arch, so the urethra, &c., is steadied, and you are enabled to carry on delicate dissections without danger in the neighbourhood of the trigone of the bladder, the prostate, and the urethra. After the operation I think it very advisable to place a tube in the rectum to favour the escape of wind, which, if retained, will cause much discomfort to your patient.

In women the assistant's finger ought to be introduced into the vagina to give you timely warning

when you approach too near the vaginal mucous membrane. In most of my cases it was absolutely impossible to bring down the stump of the rectum to the skin; if, indeed, you could do so the tension would be so great that the sutures would be torn out in a few hours. I cannot understand how Volkmann brings the rectum to the skin, puts in sutures, and gets primary union. I can only say that the operation I do must differ much from Volkmann's. I have never used carbolic dressings with the view of following Mr Lister in his antiseptic treatment; in fact, these operations appear to me to be about the very last to which the process, valuable as it may be in some cases, is applicable. Looking at the chasms I make and the part in which it is made, I should say shutting up the cavity by sutures and then endeavouring to keep that cavity sweet and healthy by drainage tubes and deeper tubes put through holes made by the surgeon is making a plaything of antiseptic surgery. How can you prevent fæcal matter from getting into the wound so incompletely closed as it must be by sutures? Perhaps it may be said that the bowels must be kept confined for days after the operation. To this I would answer, it is often impossible to do so. The intestines of these patients are always in an irritable condition, and neither opium nor any other drug will delay action for long. Then, again, I would say it is not good to confine the bowels, for should a large mass form in the upper part of the rectum such pressure on the vessels is exercised that congestion and stasis is induced, which is quite inimical to the healing process. I am fully convinced that the best after-treatment of these cases is to establish a good

drainage from the wound, to keep the parts clean by syringing with some innocent disinfectant, and if you accomplish this you need not fear; the wound will rapidly fill up, and the rectum will grow downwards and unite with the skin.

My cases are only ten in number. I will not, therefore, draw definite conclusions from them, save that the operation may be accomplished even when the growths are very considerable and the adhesions even abundant; at the same time I would point out that there are dangers connected with the operation not to be despised, but which increased knowledge may enable us to more surely overcome. I would also observe there is a tendency to look too lightly on the danger of opening the peritoneum. In three of my cases that cavity was opened, and in two no evil resulted, but in the third, I have no doubt, it was the cause of death. An important question is, do we really obtain a cure in cases of epithelioma? My modest experience would lead me think that such a result is very uncommon, and must not usually be expected. A second question, Do we obtain much prolongation of life by the operation? To that I do not pretend to give any positive answer. I am inclined to think that some, at all events, of the published cures were not really cases of cancer, but lupoid or other ulcerations. Probably a careful microscopic examination of the removed growth would be the only means of deciding the question. The excision of epithelioma usually at once relieves the patient of great pain, and much comfort is obtained. As to there being a new sphincter muscle formed around the cut end of the rectum I do not believe this ever occurs;

there may be some power of retaining fæcal matter when not liquid, but that only arises from there always being a certain amount of contraction, and that the opening usually leads into a large cavity, where motion can rest for a time until expulsive exertions are made. This contraction is often so considerable as to become an obstacle to the passage of the excretions, and then, as in three of my cases, a small division may be called for, together with the use of tubes. Finally, is the operation one to be undertaken in all cases heedless of the extent of the disease, the parts involved, or the age and condition of the patient as some German surgeons practically assert? I say by no means. The cases must be carefully selected if any real success is to be obtained.

The operation of excision of the rectum and its results has been compared by some surgeons with colotomy, when really there is no ground of comparison; both operations may be equally advantageous in fit cases, but they cannot be substituted the one for the other; the most enthusiastic colotomist would scarcely think of operating on the cases best fitted for excision, and the converse also obtains.

I shall now proceed briefly to consider the subject of colotomy. This operation may be done in the inguinal or lumbar regions, either right or left. Inguinal colotomy I have never performed, except in infants, and I have only experience of two such cases, neither of which was very successful. The left lumbar region for anatomical reasons is the best suited to colotomy, but should the obstruction be high up the bowel the right side may be resorted to. I have now twenty-seven times performed colotomy for the relief of patients

suffering from *cancer*. I do not see the necessity (the advantages of this operation being quite established) to relate my cases in detail. Most of them have at various times been published in hospital reports or the medical journals.

Generally, I will say that colotomy is justifiable when an obstruction existing in the lower bowel threatens a patient's life, also when an opening has taken place between the rectum and bladder, or urethra or even vagina high up, the distress in these cases being exceedingly great. (I have recently had the care of a *woman*, into whose bladder, by some curious route, a cancer of the rectum ulcerated, and she passed fæces and wind per urethram.)

When a cancer of the rectum is rapidly advancing, and great pain exists which ordinary means cannot alleviate, then colotomy may be done; but I do not think colotomy advisable or justifiable simply because cancer of the rectum exists; and the idea of prolonging life by a very early operation in my large experience is erroneous and not borne out by facts. When I say my large experience I do not speak of my own operations alone, but of all those I have seen others perform, and of which I know the ultimate result. I admit that a patient may be snatched from immediate death when obstruction exists by the operation, but that is not the question. I mean can we say to every patient seen in the early stage of cancer, if you will submit to colotomy you will live much longer than if you do not. I aver that we cannot truthfully say this, and I believe my position proven by the natural history of the disease to which directly I shall refer.

Of my twenty-seven cases of colotomy in cancer my best result was obtained in a man with a scirrhous growth filling up the pelvis, who lived four and a half years after the operation. My second in a woman, who lived nineteen months and was for twelve months in wonderful comfort. Only three of my patients died within a fortnight of the operation. One patient, a man, succumbed from phlegmonous erysipelas. In another case the operation was done when the patient was almost "in articulo mortis," and death took place in ten days from exhaustion, but the relief to pain was so great that no regrets were felt by the surgeon, the patient, or the friends. In the third the patient, a lady, died within nine days of the operation; there was entire obstruction of the bowel and anasarca, surgical aid was delayed too long; immediately after the colotomy paracentesis abdominis was performed. Acute pleurisy was the immediate cause of death.

In a man, æt. 39, with cancer of the rectum, of epithelial character, I operated comparatively early. There was no obstruction, no emaciation, no detectable glandular affection, but he suffered great pain. The disease or rather the symptoms, I will say, had existed only for four months. The patient recovered from the operation exceedingly well, and lived fifteen months after it, dying from extension of the disease, general blood poisoning, and enlarged lumbar glands. This patient may fairly be said to have died about twenty months from the commencement of the disease.

My observations on the natural history of cancer in all forms lead me to conclude that the large majority of victims will die, *i. e.* the disease will run its course in a month or two less than two years. In the case I

last mentioned pain was mitigated and accidents avoided, but I could not say that life was prolonged. I do not consider averages in surgical statistics of any great utility, but I may mention that the average length of life after operation in my twenty-seven cases of cancer was five months and a week. However interesting this part of my subject may be to me I have neither time nor space to further pursue it, but shall turn to the operation itself.

The method of opening the colon now generally adopted is known as Amussat's, and was advocated by that surgeon in his treatise published in 1839 'On the Possibility of Establishing an Artificial Anus in the Lumbar Region.' In the adult I think there can be no doubt that Amussat's is the best procedure.

By attention to certain rules lumbar colotomy will not be found very difficult, but the not infrequent occurrence of misadventures induces in my mind the belief that many surgeons are not yet sufficiently alive to the necessity for considerable precision in the performance of this operation, more especially when the bowel is undistended.

The directions usually afforded in works on surgery lack the element of precision, which I think indispensable. The error usually made in operating is to search for the colon too far from the spine; the result of this is, that the peritoneum is inadvertently opened, a coil of small intestine at once shoots up into the wound, this misleads the surgeon and renders the discovery of the colon more difficult as well as the operation more likely to prove fatal.

The anatomical guide to the position of the ascending or descending colon is the free edge of the

quadratus lumborum muscle, but this is by no means always easily found, and consequently it is better to substitute a more certain and unmistakeable guide, and this, as I have stated in my article on colotomy in the 'St Thomas's Hospital Reports' for 1870, may be obtained by marking a spot on the crest of the ilium, full half an inch posterior to its centre, measured between the two superior spinous processes.

From more than fifty dissections and the experience of over eighty operations of my own and others, I can confidently assert that the colon is always, normally, situated opposite this point.

Before operating I mark this spot on the crest of the ilium with ink or iodine paint, and I have always found it, when the superficial tissues are divided, a most useful landmark and guide to the exact position of the intestine. This is especially valuable if you fail to recognise the deeper structures as they are incised, which you may easily do if the patient be muscular or fat. On the whole I prefer the oblique incision, as recommended by Mr Bryant, downwards from the last rib towards the anterior superior spinous process of the ilium, and the centre of this cut, which should be made quite four inches in length, must be opposite your mark upon the crest. When the intestine is at all distended I make my incision not more than two inches in length, and I find this quite sufficient.

When about to operate the patient should be placed upon a hard couch in the prone position, with a slight inclination towards the right side, and a hard pillow is to be adjusted under the left side, so as to render the loin tense and prominent,

I have frequently seen the operator stand behind the patient. I prefer standing in front, in which position I think you are less likely to make your deeper incisions too far forward, and so inadvertently open the peritoneum.

The structures should be very carefully divided on a director, and this should be done slowly and deliberately, waiting until bleeding be arrested, so that the anatomical relation of the parts be duly recognised as the operation proceeds. I think it very desirable, though not absolutely necessary, that the fascia lumborum should be thoroughly made out, and if possible the edge of the quadratus lumborum muscle clearly exposed. If this is seen a blunt-pointed bistoury should be passed beneath it and the muscle freely divided; when this is done the colon will be found; it is generally covered by fat, which may be mistaken for the gut, but this error will be soon discovered and is very easily rectified. It is of the utmost importance that the deeper incisions be kept the same length as the cut through the skin. If you do not attend to this rule, by the time you reach the lumbar fascia you will be working in a deep triangular hole, the apex of which is furthest from you; and it will be almost impossible to find the gut, even if you have come down upon the right spot. From personal experience, and the many operations I have seen performed by other surgeons, I am quite convinced that this is the secret of overcoming the difficulties of the operation. If the colon be fairly exposed as I have directed, there is usually but little difficulty in recognising it, even when it is quite undistended, and picking it up from the bottom of the wound. In most

of my cases one of the longitudinal bands was clearly observed, and in others hard portions of fæces could be felt before the gut was opened.

The intestine having been found, it should be drawn well out of the wound, and opened longitudinally for about an inch, the edges of the incision being stitched to the edges of the skin. The sutures should be passed through the colon before opening it, to avoid any chance of the contents running into the wound. I have found thick silk sutures answer better than wire, as they do not so easily cut their way out, and I retain them until I observe that they have begun to ulcerate through the skin; but it is better not to keep them in too long—forty-eight hours is usually sufficient.

The immediate fatality of the operation depends almost wholly upon whether any fæcal matter or morbific fluid runs into the peritoneal cavity; therefore it should be remembered that it is desirable to approach and open the colon on its dorsal or even spinal aspect rather than upon its outer side, and to avoid, by all means in your power, opening the peritoneum.

When the intestine is collapsed I have recommended a quantity of fluid to be injected, but I must now qualify that advice, and say it is better to endeavour to distend the gut with *air* if you cannot find it without.

If the case goes on fairly well the after-treatment is generally very simple. I usually apply a weak solution of carbolic acid or Condy's fluid to keep the part from getting dry and stiff and to deodorize, as the smell is sometimes very unpleasant. A charcoal poultice is often very advantageous.

When the bowels have been long confined before the

operation, they are occasionally very difficult to get to act, and you may have to employ a scoop to remove the indurated fæcal lumps; this being accomplished enemata may be used to stimulate the colon to action, and relief will be obtained.

The patient is, as a rule, able to get about in four weeks from the time of the operation.

When up they may wear a well-fitting india-rubber pad to prevent the escape of wind and motion. I now have the pad made a little hollow and fill the concavity with cotton wool, which will absorb any slight moisture and keep the part dry. Some of my patients preferred merely a pad of wool and a napkin over it, to any mechanical appliance. It is a great thing to cultivate the habit of getting the bowels to act the first thing in the morning; by this, incontinence and trouble during the day is best avoided.

I always recommend the use of plenty of cold water night and morning to the lumbar aperture; by which means the mucous membrane may be kept healthy and the probability of protrusion of the gut be lessened. This, however, if the patient should survive the operation for many months, is certain to occur to a greater or less extent; generally it can be returned by gentle pressure, but sometimes it can only be replaced by passing a softened bougie or thick tallow candle and carrying the bowel upwards.

Since I have made a much smaller external incision I have not found the protrusion, as a rule, so troublesome, but still it will occur.

Among the most distressing symptoms attending cancer of the rectum must be numbered violent straining. I had anticipated that colotomy would have

entirely removed this cause of suffering, but that is by no means the case. The cancerous growth, especially when it approaches the anus, provokes reflex action, and irresistible bearing-down results; this also is the case when fæcal matter passes the opening in the loin and accumulates in the bowel below. This was supposed to be almost an impossibility, but in my experience it is of frequent occurrence, and causes severe pain as well as straining. In a case I had with Mr Aikin it was one of the evils we had always to combat, and it rendered syringing out the rectum from the anus a matter of daily necessity, and added much to the patient's suffering. In such conditions the treatment must consist in keeping the rectum as clear of motion as possible by frequent washing out with warm water and some disinfectant, the particular one used being changed from time to time. I think, on the whole, carbolic acid is the worst you can employ, as, even when extremely weak, it is liable to set up irritation in the cancerous growth in the bowel and a consequent increase of local pain. Salicylic acid and thymol I find good, but on the whole I prefer a solution of permanganate of potash, which is soothing to the part and readily destroys odour, and has no unpleasant attributes in itself. Surgeons are too apt to forget that when colotomy is performed the cancer is still left in the bowel, and attention must be directed to this. The discharge must be removed by careful syringing, and great relief may be given to the patient by injections of watery solutions of opium, and other sedatives "per anum." The patients should live well, and I always order as much cod-liver oil as they can take without disturbing the stomach.

CHAPTER XIX.

RODENT OR LUPOID ULCER

ALTHOUGH some of my critics have taken exception to the word "rodent," I cannot on reconsideration find a more appropriate appellation unless it be "lupoid," but I think the term is not so very important. What I wish to do is to describe and define a species of ulcer of the rectum not often met with, which is totally distinct from simple ulcer, and in my opinion is very nearly allied to epithelial cancer, although it differs from that malady in several essential particulars which I will presently detail.

In its early stage the ulcer is very difficult to distinguish from a syphilitic sore, and when it is situated just within the sphincter it may also readily be mistaken for the ordinary painful rectal ulcer. Rodent ulcer in the rectum differs from the malady of the same name found on the face, in being as a rule most terribly painful, and in having no indurated margin; it also differs in another essential and important point,—it is very much less curable; as far as I know, it is nearly as deadly as cancer, though not so rapid in its progress. I cannot say that I ever saw a case of undoubted rodent ulcer of the rectum cured, but I have now a case which has remained well, after excision, for more than four years.

It is a happy thing that the disease is an uncommon one; in my own practice I have only had nine decided cases, and I do not remember to have seen more than fourteen in all.

Rodent or lupoid ulcer may be distinguished from epithelioma by the following peculiarities:—it does not invade neighbouring organs by infiltration, nor does it contaminate through the lymphatics; as far as I know, it never forms secondary deposits, and it produces no hardness. It is not, I am informed by microscopists, a disease of the follicles of the rectum.

It differs from secondary or tertiary syphilitic ulceration in not inducing stricture of the rectum or any submucous thickening; and this arises from its being essentially a destructive ulceration, no long-continued effort at repair which would cause permanent deposits taking place.

The appearance of the ulcer is peculiar, and there need be but little hesitation in deciding what it is when once it is fairly established, but as I have said, in the earliest stage, the most experienced pathologist may be at fault.

The following, from my observations, I should say, are the characteristics of the sore:—the shape is usually irregular, I have only once seen it quite circular and symmetrical; this occurred in a case I shall presently relate. Its edges are sharp and cleanly cut; it does not undermine the mucous membrane; it destroys completely as far as it extends; neither its edge nor its base are at all hard, and the mucous membrane around it is perfectly, and I may say abruptly healthy. Its surface is very red and mostly dry; there is scarcely ever any amount of discharge

from it. It sometimes destroys deeply, but its tendency is to spread superficially and to attack mucous membrane rather than skin, though in some of the cases I have observed it invaded the border land between mucous membrane and skin, and it may spread even to a considerable distance on the latter. It often, for a time, remains stationary, and I have noticed repair taking place very rapidly, but just as you think cicatrisation will be completed, all the granulations will melt away, like snow before the sun, and the ulcer will appear in its former shape and character in the course of a few hours.

The patients attacked by this disease I think I may say are nearly always of a markedly scrofulous diathesis.

Rodent ulcer is generally most horribly painful (I have only seen one exception to this); the sufferer describes it as a constant burning gnawing sensation, as if a red-hot iron was applied to the part. Of course the pain is aggravated when the bowels act. Death takes place from exhaustion; the patient really appears to die from the never-ceasing suffering. Two of my cases had diarrhœa towards the termination of their lives, and this rapidly carried them off. Phthisis was the cause of death in three more. The treatment generally adopted for this disease has been the application of escharotics, such as nitric acid, chloride of zinc, arsenite of copper, the actual cautery, &c. And if you burn the sore well out the patient usually has for a time much freedom from pain. One of my patients was comparatively happy for three months after the use of fuming nitric acid, but of all escharotics I think the best are the chloride of zinc (used

after Fell's plan) and the arsenite of copper, but even these, in my experience, will only delay the malady, but do not cure it. Internal remedies are advantageous, such as tonics, cod-liver oil, sedatives, &c., but they only lend a feeble help. Specifics are, in my opinion, worse than useless. I believe the only plan worth trying now is exceedingly free incision. Should a case come to me with my present knowledge I should perform extirpation of the lower part of the rectum. The only patient I have had do well was a Greek gentleman, who came to me in February, 1875, and from him I removed two thirds of the circumference of the rectum dorsally where a well-marked rodent ulcer existed. He had consulted many eminent men, and all kinds of treatment had been tried internally and externally without benefit. The sore had existed twelve months at least when I first saw him. I have excised rodent ulcers before but never so freely, and I now think my operations had not been radical enough. In the above instance I removed all the coats of rectum, and even fat, and cut at least an inch all round away from the sore. Up to the present there has been no return of the sore, and the patient is very well in general health, four years after the operation.

In my opinion some cases that occurred to me years ago are so typical, and illustrate so well the disease, that I shall not relate in detail any of later date.

Mrs. H—, æt. 30, a delicate-looking, nervous, excitable woman, of strumous diathesis. She has three children, the youngest being two years of age. She has never had any miscarriages or any serious illness prior to her present one; but considers herself as delicate and suffers much from sore throat. Six months ago she was supposed to have had fissure of the rectum, and an operation was performed upon her by a very skilful surgeon, but she did not get well. She was better for a

time, but the pain has returned and she feels much as she did before being operated upon.

On examining her I found an inflamed-looking ulcer at the entrance to the anus, it was partially external, about one third being outside and the rest inside. It was three quarters of an inch long by about half an inch wide; it was quite superficial, and was not at all hard. The sphincter ani was spasmodically contracted; she suffered a good deal of aching pain, worse after action, and the bowels were very confined. There was no polypus. I decided to divide the sphincter freely. My friends Dr Crosby and Mr Shillitoe, who assisted me at the operation, were strongly of opinion that the sore was syphilitic. I have mentioned that she had sore throat, but she had no rash, and there was no history of syphilis. The uterus was found to be quite healthy. This lady's husband had not been a steady man, and therefore it was by no means certain that she had not been infected; so it was agreed that she should take the bichloride of mercury with tonics and cod-liver oil.

The operation at once relieved the pain, and she went on very satisfactorily. The wound looked healthy, granulated freely, and I saw no reason why she should not do well; but after about five weeks the sore became stationary, and refused to answer to stimulating lotions; moreover, she began to suffer from her old pain, which she always described as being like "a red-hot iron applied to the part." I may say that the wound had healed up to nearly the dimensions it was when I operated. I had now pretty well made up my mind as to the character of the ulcer, so, when at the end of three months I found it still no better, but rather increasing in size, I determined to cleanly excise the whole sore. Again assisted by the same gentlemen, I freely removed the ulcer, cutting wide of it, and removing the base fully down to the cellular tissue, taking, of course, nearly all of one half of the external sphincter muscle away. After this I well swabbed the wound with a strong solution of chloride of zinc. Both Dr Crosby and Mr Shillitoe agreed that it was impossible by the incision I had made not to have removed all the diseased parts. After this operation for three months the patient went on well, and the sore healed up to nearly its original size, when it again halted, and the pain returned as badly as ever. My colleague, Mr Gowlland, now saw her in consultation with me, and was very inclined to give a favorable prognosis, but, on taking the case in hand himself, he soon found that no remedy he had knowledge of was of any avail. This lady afterwards consulted many eminent surgeons, but without deriving any benefit, and she died in about three years from the commencement of her illness, being then under the care of the late Mr De Morgan in the Harley Street Surgical Home for Ladies.

A girl, æt. 17, who came from the country, was taken into St Mark's

Hospital under my care in the summer of 1867. She was ruddy-complexioned, heavy, rather stupid, strumous looking person, and we had a good deal of difficulty in extracting any information from her. She had a sore just at the verge of the anus, towards the perineum, and it had burrowed through into the vagina, close to the fourchette. She did not know how long it had existed. She professed to be very innocent, and strongly denied any possibility of syphilis, but she had no appearance of a hymen, and her vagina was capacious. She had a superficially ulcerated throat, and some spots of a suspicious character on her head and on her body. She had no enlarged glands in her groins; she complained of a great deal of pain in the sore. I made but little doubt about its being syphilitic, and prescribed an antisyphilitic treatment; finding no improvement take place, I passed a director through the sinus and laid it open—still it did not heal. Mr James Lane, who was then one of my colleagues, saw it and agreed with me as to its being a syphilitic sore, so I persevered with the remedies for some time longer, but it did not heal, and I began to have my suspicions that I had made an incorrect diagnosis. I then treated the ulcer freely with strong nitric acid, and for a time it greatly improved, and she suffered scarcely any pain; and then all of a sudden, without any apparent cause, the sore spread and extended up the bowel, as well as the vagina, removing the tissues rather deeply. She rapidly lost flesh, became very weak, and had almost constant pain, which was only slightly mitigated by hypodermic injections of morphia. I kept her in the hospital for a long while, but finally, at her own request, I sent her home, and I was informed that she did not live very long.

A man, æt. 42, of delicate and feeble appearance, was an out-patient of mine at St Mark's. He had been ill for about twelve months, and had been in several hospitals. He had ulceration of the rectum, superficial but extensive; dorsally it extended up the bowel for quite two inches, and laterally, on both sides, for about an inch; the skin externally was slightly involved; there was no constriction of the bowel, and no deposits; the sore had a very dry and red appearance, it discharged a sanious fluid, but no pus. He suffered most horribly, scarcely ever had a moment's ease, and he took all the morphia he could get. He would not come into the hospital to have anything done; all he prayed for was something to relieve his pain. I taught him to use the hypodermic syringe upon himself, and he obtained some ease from that. When he became too weak to come to the hospital I visited him at home wishing much to get a *post-mortem*, but when he died his friends would not allow it. He died of diarrhœa; there was no evidence of any secondary deposits having taken place.

John S—, a gunner in the Royal Artillery, æt. 31, was sent to me at

St Mark's, January, 1872, from the hospital Shoeburyness. The history is that he has been in India for six years, and returned to England twelve months back. While in India he had diarrhœa, fever, and smallpox, but never dysentery, always enjoyed good health, he is a steady man, single, and of very good character in the army. He cannot quite assign any date to his rectal affection, but had piles in India and some operation was performed for their cure; after this he was but little troubled until a few months before he returned to this country. He has been six months in the military hospital without any improvement in his condition. He has never had syphilis, but has had gonorrhœa.

He is a middle-sized slight spare man, much marked by smallpox, aspect not very unhealthy. An examination of the chest detected dulness at the upper part of the right lung; he is rather subject to cough and there is phthisis in his family, but he has never suffered from hæmoptysis or inflammation of the lungs. On separating the buttocks a perfectly symmetrical, nearly circular sore is seen extending all round all the anus, it is as large as a five-shilling piece, very superficial, with a well-defined edge; the sore discharges but little pus, is remarkably clean and red, and is covered by rather largish granulations. The anus is more patulous than natural, and the ulceration is found to extend up the bowel for fully an inch; above this the mucous membrane is quite healthy. There is not the slightest induration about the sore. The sphincter muscle is very relaxed and powerless, and the patient states that when the motions are loose he has but little control over them. There is no evidence of syphilis; he has no rash, sore throat, or enlarged glands. He does not suffer severe pain, but there is a constant burning in the part, which is aggravated by any movement and by the bowels acting. His appetite is fair; he sleeps, but his nights are disturbed not actually by acute pain, but by uneasiness and stiffness in the sore. He has been gradually losing flesh and strength.

Many eminent surgeons to whom I showed this patient directly pronounced the sore to be syphilitic, but a further investigation induced them to withdraw that opinion, and most were inclined to think that it was rodent ulcer. I inoculated the patient with the discharge from the sore, but the result of two separate operations was negative.

The treatment at first was iodide of potassium with bark and cod-liver oil, the application of stimulant and

sedative lotions to the sore. After a time, no benefit resulting, the iodide was omitted and Donovan's solution was administered; this also seemed to be of no avail.

I destroyed a portion of the ulcer with the fuming nitric acid, but no improvement took place; therefore I did not apply any escharotic to the whole sore.

This man remained in the hospital for about four months, and despite all that was done for him he got gradually worse. The pain was mitigated by sedatives, but it became more severe and almost constant; he lost flesh and strength, and the ulcer increased in size until when he left, it was just three inches in diameter; and deeper than at first; it also had much extended up the rectum. He went to the Herbert Hospital at Woolwich, and I heard some months afterwards from the gentleman under whose care he was that he died; no post-mortem was made.

I am very strongly of opinion that I can do much more for the cure of the disease now than I could when the above-mentioned patients came under my care; my treatment would be, if possible, very free excision of the whole of the diseased portion of the bowel.

CHAPTER XX

VILLOUS TUMOUR OF THE RECTUM

This is a rare but interesting disease. Mr Quain in his work gives the details of one case which was the only one that had fallen under his observation. I have now seen eight examples of this growth—five in my own practice, two in St Mark's Hospital, under the care of my colleague, Mr Gowlland, and one in my colleague, Mr Alfred Cooper's, practice.

The leading symptoms may be stated as the descent of a tumour, usually on the bowels acting or even when the patient walked, and the very abundant discharge of a glairy mucus resembling the white of an unboiled egg. This latter, in all my cases and in Mr Gowlland's also, was the most prominent symptom; even when the tumour was not protruded from the anus this discharge frequently ran away from the patient without his having control over the escape; it is evidently a very great exaggeration of the normal secretion of the mucous membrane of the rectum by the villi which grow from it and form the tumour.

Blood in some of my cases was lost in quantity, two of my patients being quite blanched from that cause, but I would observe that even the loss of the mucus is a severe drain upon the constitution, and shows itself in the aspect of the patient. Exceedingly

large arteries may usually be felt entering the broad peduncle of the growth. It does not appear that pain usually attends this disease, only discomfort arising from the protrusion and constant discharge. The tumour consists of a lobulated spongy mass, with long villous-like groups studding its surface; it resembles exactly—though the villi are much larger—the growth of the same name found in the bladder. Usually it is attached to the bowel by a stem, broad rather than round, and this appears to me to be more like an elongation or dragging down of the mucous membrane and sub-mucous tissue than a development. The flattened peduncle may be two or three inches in length or it may be short; in two of my patients it was quite short, indeed, the tumour itself came outside but grew directly from the surface of the bowel.

In cases where the growth arises from the perineal surface, as a practical point worth remembering, I should say it is by no means impossible that a pouch of peritoneum may be dragged down into the pedicle, and in such a case if the ligatures were applied close to the bowel, peritoneum might be tied up with it.

When my last edition of this work was published, from what I had seen and heard I was of opinion that these tumours when removed did not return. I am obliged now to modify that opinion, as I am also as to the large losses of blood occasionally attending them. I am also compelled to withold any decided expression of opinion as to their malignancy. If malignant, they certainly are only feebly so, but that is all I would confidently assert. From a case I have had I think it very probable that these growths sometimes shed themselves, and the patient may remain well after this

for a considerable time. Supposing that, as Mr Cripps thinks, epithelioma is a disease of the follicles of the rectum, may not villous tumours be epithelioma of the villi? not so malignant from the fact that it grows outwards from the mucous membrane instead of sinking into it when the cells cannot readily escape. Three of my cases I will relate in some detail as they are my most recent ones.

Dr D—, a physician, came to me in September of 1875. He is sixty years of age, a small and spare man, with an aspect of countenance suggesting malignant disease. He is married and has a family. He says that for quite two years and a half he has suffered from piles, something occasionally protruding from the anus on going to stool. About two years since he began to lose blood, and a considerable quantity of glairy mucus was discharged from the bowel. The tumour, for it was single, grew rapidly and always came down at the closet, and occasionally on exertion. It bled profusely, often half a pint, at one action of the bowel, and he had fainted in the closet from loss of blood. On being returned inside the sphincters the bleeding ceased. Latterly, *i. e.* within the last few months, he had much difficulty in returning it owing to its large size, as it gradually became as large as a man's fist. It had, he said, a soft spongy feel, and the blood could be squeezed out of it by the hand. Three weeks back he found the tumour began to disintegrate on his handling it, and now it had so decreased that he could readily return it into the bowel. His health had been very materially failing, he was weak, often giddy, with noises in his head and dimness of vision.

I gave him an enema, and on going to the closet he brought outside the anus a very vascular tumour looking like a sponge, in size about a large hen's egg, and bleeding profusely, as it was tightly girt about by the sphincter. On examining the bowel I found the tumour was connected with the mucous membrane by a short, thick, tough peduncle which was quite smooth. When the growth was returned into the bowel, which was accomplished with some difficulty, you could scarcely realise the fact that so large a tumour existed, only the pedicle could be felt as something hard; it was attached about an inch and a half up the rectum on the left side and rather towards the dorsum. The peduncle was about the size of the forefinger in thickness. On September 22nd, assisted by Mr Baly then the resident surgeon at St Mark's Hospital, the tumour being got well down I passed a double

thick ligature, by means of a rectangular needle, through the pedicle close to its attachment to the rectum, and tied it tightly in halves. I felt a large vessel pulsating forcibly in the pedicle, and, of course, avoided wounding this with the needle. The peduncle was so short that I did not dare to cut off the tumour, fearing if I did so the ligatures might slip. The growth was lobulated and distinctly villous.

The patient made an excellent recovery, and speedily gained health and strength. In about twelve months after this operation Dr D— again came to me and said the growth had returned. On examination I found he was right, but the tumour was small. This time there was absolutely no peduncle, and it was broad at the base and felt hard at its attachment to the rectum. This case led me to doubt the innocent character of villous tumour. I agreed to remove the growth again, and the patient having ether I was able to dilate the sphincters, and, partly by knife and partly by ligature, to extirpate the whole very thoroughly. After this the patient recovered, and there has been no return up to a very recent date when I saw this gentleman.

A young man, pale and thin, was sent to me at St Mark's Hospital in April of 1877 by Dr Way, of Southsea. He said he had piles, that they came down at the closet and on walking about; they did not bleed much, but he lost quantities of watery discharge which frequently ran away and saturated his trousers. On administering an enema he strained down a large tumour the size of a hen's egg with a peduncle broad and thin; it was ligatured in four portions and cut off. He made a good recovery, and left the hospital in three weeks quite well. On examining the bowel after the ligatures came away no trace of hardness or peduncle could be felt; the tumour was situated at the dorsal surface of the bowel and to the right side.

J. B—, æt. 52, was admitted into St Mark's Hospital under my care on the 22nd of April, 1878. He was in appearance the colour of old wax, was very feeble, and looked prematurely aged. His heart's action was intermittent, and a soft blowing sound could be heard. He said that he had suffered from what he considered to be piles for some years, but lately he had a very large mass come outside. He lost quantities of blood, and there was also a discharge from the bowel "like gum water." He had a tendency to diarrhœa; great difficulty was experienced in returning the growth which bled all the while it was protruded. On examining the tumour when down it was found to be quite as large as a man's fist, spongy, lobulated, with the villi greatly hypertrophied, the growth was so vascular that you could scarcely touch it without arterial blood spurting out. On passing the finger into the rectum the tumour was found to grow all round the bowel, and there

was absolutely no stem; all attempts therefore to ligature it in the ordinary way could not be successful. As an operation was necessary to save the man's life I determined to remove the tumour, and I thought I could succeed by ligature and strong harelip pins. With much trouble and great loss of blood I managed to strangulate the whole mass. When I perforated the stump of the growth with a needle threaded with a double ligature and tied each way, the bleeding was tremendous at the point where the segments were drawn apart, therefore I could find no way to strangulate and arrest hæmorrhage save by the harelip needles and the figure of eight ligature. The actual cautery and perchloride of iron had no power over the bleeding of this huge cauliflower-looking growth. Of course it had to be left protruding from the anus.

The patient was exceedingly exhausted, not being in a condition to support such a sudden loss of a quantity of blood. For a few days I was in some anxiety about the termination of the case, but he rallied wonderfully, and at the end of a few days I thought him safe if no secondary hæmorrhage took place; this fortunately did not occur. The decomposing mass was kept quite sweet by charcoal powder and he got on well; the parts separated without any bleeding whatever and left a large granulating sore; just as we thought all was right he was attacked with diarrhœa very difficult of control, in fact, nothing was of service but a powder consisting of bismuth, soda, charcoal, and opium, which eventually cured him. He was not sufficiently recovered to leave the hospital until two months after the operation. I have seen this patient frequently since he was discharged and no return of the tumour had taken place, but high up in the rectum I find some small nodules; whether they will develop into anything serious I know not, but I watch him with interest and some anxiety. His general health is quite restored; he is now compara-

tively ruddy, having lost altogether the peculiar expression of face he had prior to the operation.

I have mentioned my belief that villous tumours at times shed themselves, and I will relate the case which supports my view—

Miss H—, a maiden lady, of fifty or more years of age, was kindly sent to me by Dr Morton, of Kilburn. She was a tall, spare woman with a rather worn expression of face. Her history was that about twenty years ago she had suffered from losses of blood from the rectum and also from a discharge which she described as like thin starch. This fluid flowed away at times in abundance. At this time her health was much broken, she had pains in her back and inability to take exercise; nothing came down on the bowels acting. Her bowels were very constipated and she took some strong aperient pills the result being that when the bowels acted "a large mass of flesh came away, and the bleeding was so severe that she fainted." After this she had no more bleeding or watery discharge, and quickly recovered her health. After being well until about twelve to fifteen months ago to her horror the bleeding and discharge recommenced. She consulted medical men who said her case was one of piles, and various treatment was adopted without any effect. She told me that portions of fleshy soft character came away sometimes at stool. She had straining, pains, and general debility. She was ordered to take charcoal, bismuth, and soda powders three times in the day, and use an injection of rhatany. I requested her to send me a specimen of what she passed when straining. My examination detected nothing but a relaxed voluminous mucous membrane which came rather down into the rectum, but neither by finger nor speculum could I detect any disease. In a few days after the consultation the patient sent me some of the discharge, and I found remarkably good specimens of villous growth, some pieces being as large as a hazel nut. I saw this lady once more and used all means to see or feel the growth, but could not get at it. I was quite sure of my diagnosis and could only tell her I hoped in time the stem of the growth would increase in length and come down within reach, so that one could remove the disease. A few months after this I had a letter informing me that the charcoal had caused a stoppage in the bowels for which large doses of aperients, castor oil among them, had been used to obtain relief, and that when action was at length obtained a mass came away not so large but much resembling the one she had passed years ago, and that she felt much relieved. She sent me a portion of the specimen, and that sure enough was a villous growth. Whether there will be any further return remains to be seen.

The case is a very interesting one, and leads me to think that villous growths may break away from the bowel more often than is supposed, and I now remember some very puzzling cases I have seen which were possibly similar to the one I have related.

CHAPTER XXI

MISCELLANEOUS

In this my concluding chapter I intend to treat briefly of some rather rare forms of disease, and to make a few observations upon the physiology of the large intestine, to the consideration of which I have been led particularly by three cases that have been under my care.

Neuralgia of the Rectum

I can see no reason why neuralgia should not sometimes attack the rectum as well as any other part of the body; no doubt many other affections have been erroneously called neuralgic, and I am ready to confess that I have more than once considered pains as neuralgic which I later on discovered to originate from a lesion of structure.

Very slight erosions or even inflammation of a spot in the rectum may set up much pain; and at the same time be so difficult to discover as to baffle the closest and most searching investigation.

I have been in the habit of calling pain in the rectum or sphincter muscles neuralgic when I have not been able to find out the slightest lesion, sign of

inflammation, or discharge of any kind, and where the pain was not aggravated by action of the bowels; this I always consider an important point in diagnosis.

In my cases the pain has been at times severe, at others absent, and only in two instances was it constant. The patients have been mostly delicate, irritable, or nervous people, who have been subject to neuralgic pains in other parts. I have noticed the attack follow direct exposure to wet and cold by sitting upon damp grass. One attack predisposes to another; several times in private practice I have been consulted by the same patient.

Usually you will find in these cases general debility, but in addition disorders of the digestive organs; very often the liver is much affected; so it will not do to commence your treatment with tonics and anti-neuralgic remedies; first of all unload and put the abdominal viscera into condition, and then quinine, iron, strychnia, and hypodermic injections of morphia may at once cure your patient. Attention to this point is all important; in some instances, however, one has to confess to an inability to do more than temporary good; nothing appears to cure the malady.

When the pain seems quite confined to the sphincter muscle there is always spasmodic contraction, and I believe forcible dilatation of the anus, performed as I have before described, to be the best treatment; after this is done a hypodermic injection of morphia will often cure this affection, which I used to consider a very intractable form of myalgia.

There are other nervous diseases of the rectum described by authors, but they are very rare indeed; one of them, which is called "irritable rectum," I

think is really the result of a chronic inflammation of the mucous membrane, as in such cases I have observed much heat in the bowel and tenesmus, as well as a discharge of mucus. These cases are best treated by very gentle laxatives to keep the bowels acting, by alkalies with bitter infusions, and by insufflation of bismuth and charcoal into the rectum. This will soon allay the irritability, and after this is accomplished the cure will be rendered permanent by injections of Rhatany and starch, with small doses of the liquid extract of opium.

Removal of Coccyx

I have seen many female patients suffering from what has been considered neuralgic pain in the rectum, but really the pain was most distinctly referable to the sacro-coccygeal joint. These are most intractable cases, and on two occasions I have removed the coccyx in the hope of curing the disease which was wearing out the mind and body of the patients.

My first case was a married woman, æt. 54, with seven children. She had for years been complaining of pain in the rectum and at the end of the spine, which rendered her quite incapable of performing her household duties. She could not sit down except on a ring-shaped air-cushion, and when from home she always wore under her dress a couple of pads to catch the buttocks so that the end of the spine should not touch anything.

If the bowels were confined she had great pain before and at the time of their acting rather than

afterwards. If she stooped and suddenly raised herself the pain "was like a knife going through the very bottom of the back." She could walk but a short distance, and going upstairs was a very painful exertion to her.

On examining the rectum no fissure or ulcer was discoverable, but when the finger was pressed on the coccyx so as to move it—and it moved exceedingly freely and easily—she complained most bitterly.

As nothing I could do seemed to benefit her, and she had been under many eminent physicians and surgeons without getting better, I determined to remove the coccygeal bone at the joint; and this I did. Making a straight vertical incision along the bone, and taking care not to wound the rectum, I dissected it out and disarticulated it without any difficulty. There did not appear to be any appreciable pathological change in the bone. The wound healed rapidly, and I was much pleased to find that the patient was cured. She was able, nine months after the operation, to sit down in comfort, and to walk about without any pain.

Encouraged by this success I operated some years back in a very similar case at St Mark's Hospital. The patient was an unmarried woman, 32 years of age, who had been for years suffering from pains in the rectum and end of the spine. Her symptoms were almost precisely like those I have described, and there was no lesion in the bowel, but she had an intussusception, not to any great extent, of the rectum. This made me less sanguine of success, but as the pain was undoubtedly sacro-coccygeal I removed the bone and the wound healed well. Although she is not perfectly

free from pain she can sit down in comfort, which she could not do at all before, and in many other respects she is improved.

Two years ago I removed the coccygeal bone from a gentleman who had sustained a most painful injury by falling on the side of a rowing boat from which he was getting out. He had suffered much afterwards, and a fistula formed in the bowel. This had been opened, but he was no better—when he began to get about the pain returning in all its previous acuteness. On carefully examining him I found that a sinus ran close to the coccyx, and bare bone could be detected with the probe, so no doubt a periosteal abscess had formed. Believing the bone to be diseased I requested him to allow me to remove it, and he consented. When the bone was excised there was not any necrosis evident, but it was unusually dense, so I concluded inflammation had been present. I was rather in doubt about the case doing well, but a perfect recovery was the result, all pain being gone before the wound had healed.

I by no means intend to advocate the frequent removal of the coccyx for pains in the neighbourhood of that bone, yet I think in some cases where all other means have been exhausted, and there is good evidence that the pain is induced by every movement of the bone, its excision is called for, and may be the means of curing an otherwise incurable disease. I do not see any particular danger in the operation, and that the coccyx may be dispensed with without any evil resulting is I think certain.

INFLAMMATION OF THE RECTUM may occur in both a

chronic and acute form. The chronic variety obtains in old people. The symptoms are a sensation of heat and fulness in the rectum, frequent desire to go to stool, and great tenesmus; there may be a discharge of blood and mucus. With these symptoms you would suspect impaction, but a digital examination will settle that point. Injections of starch and opium are very beneficial, but I think in the aged the most efficient medicines are turpentine, aloes, confection of black pepper and copaiba. I usually order frequent and small doses of Barbadoes aloes; it acts as a stimulant to the rectum, induces a healthy action, and very soon the disorder subsides.

Acute inflammation of the rectum resembles dysentery in its symptoms, but is distinguished from it by the absence of abdominal pain or tenderness and severe constitutional disturbance; the pain is generally confined to the sacrum and perineum; the bladder is often sympathetically affected, and there is not infrequently difficulty in passing water.

The most effective treatment would be leeches around the anus, hot baths, injections of water in small quantity as hot as can be borne, to this may be added a drachm of Batley's sedative. A hot bath followed by a hypodermic injection of morphia is likely to benefit. The patient should keep the recumbent position, take very light unstimulating nourishment, and no irritating purges should be given. If it be necessary to relieve the bowel of its contents a flask of warm olive oil as an enema is the best that can be employed. I have seen very few such cases in this country, but they are not so uncommon in hot climates.

Some points in the physiology of the colon.—A consideration of the size and structure of the colon would lead me almost *à priori* to imagine that its office was more important than that of a mere reservoir of fæcal matter. It is quite true that the chyme assumes a fæcal odour and character in the colon, but I would call to mind the fact that food taken into the stomach occupies twelve hours in passing through the small intestine, while it takes thirty-six hours to pass through the colon (*vide* Pavy 'On Digestion,' p. 184). My view is that a great deal more is done in the way of digestion and absorption in the colon than is generally believed, and my observations on three patients under my care have led me, I will not say to a conclusion, but supposition that the value of the colon has been under-estimated. Various experiments have been made which would tend to show that the colon has very little power of digestion, or, indeed, of absorption. I now refer especially to the paper of Dr Marckwald, of Heidelberg, who had a patient with an opening into the cæcum, through which various substances and preparations could be introduced into the colon, which, practically, was isolated and quite cut off from the small intestine; but I would point out that injecting various preparations into the colon as a test of what that portion of the intestine could do is liable to error. The real question is, what the colon does with the fluid, &c., which is poured into it from the small intestine after it has undergone all the transformations the stomach and small intestine are capable of? I think it is fairly established that injections into the lower part of the colon are capable of being in some degree absorbed by it, and that patients may be kept

alive and nourished by such injections when they would die of inanition if they were omitted. What I shall show by my patients is this, that many aliments taken into the stomach will pass through it, and also through the small intestine without being absorbed and without being much altered in the passage, and certainly without having their nutrient properties at all utilised. I will relate the cases which have led me to this conclusion, and I fail to see how my inferences can be refuted.

A young woman came under my observation at St Mark's Hospital in the year 1875. Her history was that about seven months before my seeing her she had suffered an abdominal attack, of which the symptoms were sudden pain, with vomiting, for which for a few days she had no advice. When she called in a medical man he found a large swelling in the right inguinal region, which was thought to be an inflamed gland, poultices were applied, and in a few days the swelling burst and discharged a quantity of very ill-smelling fluid and matter. After this she gradually got better, but the opening did not close, and she continued to pass large quantities of fluid, and this was a marked symptom when she came to me. On examination I discovered that the opening, which was large enough to easily admit two fingers, communicated with the small intestine close to the cæcum; in fact, I could pass my finger into a considerable cavity, which, I have no doubt, was the cæcum. An injection of about a pint of fluid per anum ran freely out of the hole in the groin, which rather astonished me, as I wondered what had become of the ileo-cæcal valve, but such was the fact and there could be no disputing it. I per-

formed this experiment many times and always with the same result. With the injection generally small lumps of fæces were washed out of the opening. After a time I found that certain articles of diet came from the opening in a wonderfully short time after she had swallowed them, and further, that they were almost unchanged. Beef tea, tea, milk, port wine and water were all discharged from the opening within, in some instances, ten minutes of their being taken. Beef tea had its characteristic smell, appearance, and also taste; exactly the same was the case with tea, milk, and port wine and water. A dose of tincture of cardamoms with ammonia and chloric ether passed actually unaltered in colour, odour, and taste. On one occasion I gave her some grapes and told her to swallow the seeds; in twenty-five minutes the seeds passed as they were swallowed. Thick foods, as soup, batter pudding, minced meat, and bread and butter did not pass rapidly, and appeared to have undergone digestion and to have been in a great degree absorbed. The patient was always ready for food, but emaciated gradually on a full and nutritious diet. I watched this patient for fifteen months, during which time she became almost a skeleton, and she died of anasarca, the urine being loaded with albumen. I forgot to say that bile in quantities flowed away daily, sometimes appearing like bile taken from the gall-bladder. I could not obtain, in consequence of the objection of her friends, any post-mortem examination. I performed several operations on this patient with the view of closing the aperture, but I was not successful.

In 1876 I opened the ileum close to the cæcum in consequence of there being a cancerous tumour in the

cæcum, and the man recovered from the operation. Experiments upon him yielded the same results as in the young woman whose case I have described. He died six months after the operation from general blood poisoning from the cancer, but his emaciation was exceedingly great, which I think, at all events, was in part due to want of perfect nutrition.

Last year I saw a man, past the prime of life, who had been operated upon for obstruction in the cæcum, probably of a cancerous nature, the small intestine having been opened. He came to me at the Surgical Aid Society in order to procure an instrument to catch the large fluid discharge which took place from the opening in his right inguinal region. So abundant was this discharge that in a walk of half-an-hour a pint and a half would be found in the india-rubber bag—like "a railway urinal"—which he wore. He said he was sure a gallon came away in the twenty-four hours. He was much troubled by the protrusion of the intestine, which always took place when walking or standing, and which would extrude itself to the extent of six or seven inches, free bleeding generally took place from this, and he had the greatest difficulty in returning it; often having to go into the hospital in order that he might lie down and have ice bags applied. When the intestine was outside it was interesting to observe its constant peculiar vermicular movement—it was really never still, and was a most unpleasant object to watch. I conducted some experiments on him as I did on the other cases. A cup of warm coffee, with milk and sugar, came through the aperture in eight, ten, and twelve minutes—it was unchanged—the odour, smell, and taste were all

present, and also the sweetness. The seeds of some raisins were evacuated in fifteen minutes. He emaciated fast, was always hungry, and very weak. I do not know how long he lived, but I feel certain he did not survive long after I saw him. Indeed, as I offered him a *douceur* to show himself to me every month, and it is many months since he came, I cannot but conclude he has succumbed.

I do not wish to enlarge upon this subject which, I am aware, has nothing to do with 'disease of the rectum,' but I trust the interest of the cases will plead my excuse with the reader.

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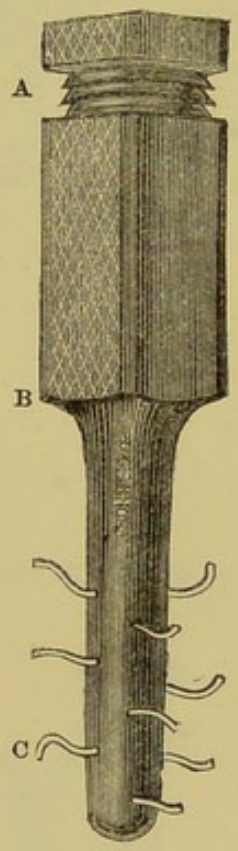
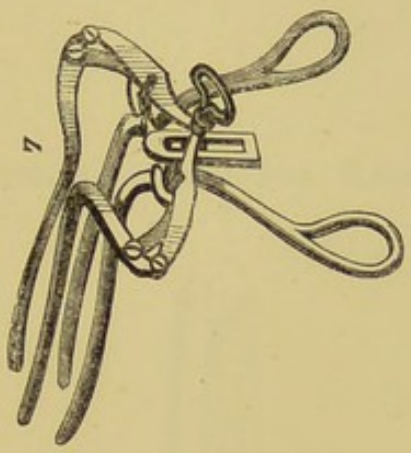
Improved American Ointment Introducer.

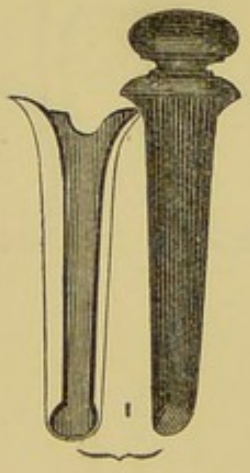


The screw (A) being removed, the tube (B) is to be filled with the ointment. On introducing the instrument into the rectum, and turning the screw, the ointment passes out of the apertures, as shown at C.

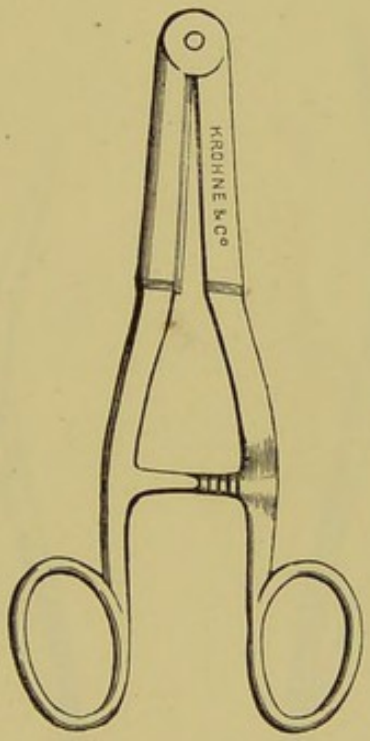
MR. ALLINGHAM'S FOUR-BLADED SPECULUM.



SPECULUM ANI.

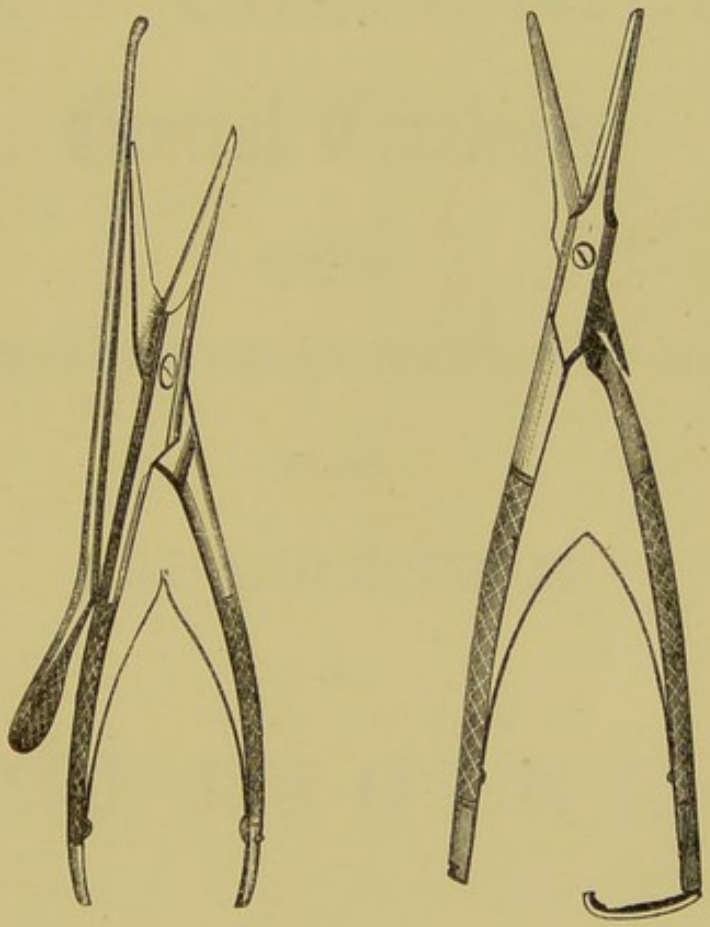


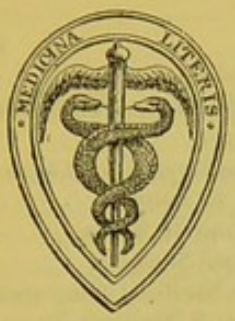
Mr. Allingham's Clamp for Hæmorrhoids.



Spring Scissors, with probe point in the grooved director. It should be observed that the scissors can only be removed from the groove by drawing them out towards the handle of the director.

At the side is shown the strong spring scissors used at St Mark's Hospital in the operation upon internal hæmorrhoids. Made by Ferguson, Weis and Son, Krohne and Sesemann, and others.





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