AN INAUGURAL DISSERTATION
ON
FISTULA IN ANO.

Submitted to the public examination of the faculty of physic

Under the authority of the trustees of Columbia College,
in the state of New-York,

The Right Rev. Benjamin Moore, D.D. President;

For the degree of Doctor of Physic,

On the 12th Day of November, 1805.

By Benjamin Kissam,
of New-York.

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1805.
TO

RICHARD S. KISSAM, M. D.
And one of the Surgeons of the New-York Hospital,
For his particular care, friendly attention, and instruction while a Student;

AND TO

JAMES S. STRINGHAM, M. D.
Professor of Chemistry and of Legal Medicine in Columbia College,
For his personal friendship and politeness during the medical studies of the Author;

THE FOLLOWING

DISSERTATION

Is most respectfully dedicated.

While I lament the future deprivation of those inestimable advantages which I have received in the course of Medical Lectures under the patronage of the several Professors of Columbia College, (whose friendly attentions will ever be remembered with the most lively effusions of a grateful heart) I have the pleasing consolation, that to their instruction I feel myself principally indebted for that confidence so necessary to undertake the task assigned me: conscious that they will receive my first efforts as an author with that indulgence which they have ever evinced toward youth and inexperience, I shall enter upon the subject intended for their examination.
Doctor Mitchell

With the best respects of
the Author
HISTORY

OF

FISTULA IN ANO.

Any deep sinuous ulcer, discharging by a small orifice ill-digested matter, attended with fetor, constitutes that disease called Fistula; which term is as expressive as any that could have been applied to it,—fistula signifying a pipe; between which and the appearance of the disease in question there is a very striking similitude.

Fistulous ulcers may take place in any part of the body; but they are most frequently met with in the rectum and parts adjacent, where they are attended with much more alarming symptoms, become more tedious in their duration, and are with more difficulty cured than when situated elsewhere: hence they become objects of greater importance, and of more serious at-
tention than those occurring in other parts, which are generally less distressing as well as less dangerous. Most surgical authors, both ancient and modern, have treated of this disease, though in a very concise manner. Mr. Pott, however, has written more fully on this subject, and appears to have formed more accurate ideas as to the nature of this affection, than any of his predecessors. The ancients entertained a very erroneous opinion of it, which led to a mode of treatment equally injudicious. They imagined that all complaints situated *juxta anum* were fistulous, and that the only method of cure consisted in a complete extirpation of all the diseased part, or rather of all that was callous. Now we know, that this callosity is frequently in very large proportion, especially when arising from an abscess, which is its most general cause. Mr. Cheselden says that the true fistula runs between the muscular and inner coat of the rectum. This indeed is sometimes the case; but it is oftener found to take its direction between the rectum and the
substance that surrounds it, though it is by no means to be considered as confined to this part alone. On the contrary, its seat is frequently detected in the muscles and cellular substance situated here, so that not only one sinus but many are to be observed extending to different parts of the pelvis, as to the bladder, perineum, os sacrum, &c. When this occurs the situation of the patient is indeed truly deplorable, and the prognosis is almost always unfavourable. Such forms of the disease generally occur in ill-conditioned habits, particularly in those which have been affected with lues venerea, scrophula, &c.

Fistulous ulcers may be considered as either constitutional or local, simple or complicated. When they take place after previous excitement and indisposition of the body, they are generally local; but where they arise without any evident or known cause, they may justly be supposed to depend on the constitution, and they then appear in the most simple way. It has been imagined that when the discharge happened in the manner last de-
scribed, it was intended by nature to free the system from some morbid affection; and, on account of this supposed salutary effect, it was suffered to remain unchecked. This most certainly was improper, notwithstanding the benefits which might appear to have arisen from such a mode of treatment. My objection to it is not so much founded upon the debility necessarily induced by this discharge, as upon the dangerous consequences attending such a sinus, when allowed to continue a great length of time. The matter formed under these circumstances is of a very corrosive nature; it may, therefore, penetrate many parts of the pelvis, and the disease in this way be rendered incurable. Nor is this all; the orifice of such a sinus being generally small, great inconvenience, as well as danger to the patient, may arise from its becoming entirely closed; an event which not unfrequently occurs.

Fistulæ in ano may originate from several causes. They often succeed hæmorrhoidal discharges; in which case, they are for the
most part easily cured; but when they are the consequences of an abscess, it is far otherwise: they are then attended with all the symptoms of inflammation, such as chills followed by a full and hard pulse, thirst, restlessness, and a fixed pain in the part affected. Why inflammation here ends in an abscess oftener than in other parts may be explained from the circumstance that the circulation is more languid; and it is but reasonable to suppose that absorption is so likewise: hence, from the inactivity of the absorbents such extravasations more particularly terminate in suppuration. Why abscesses here produce fistulous ulcers must be obvious to every one who considers the structure of the part.

It has been advised, and strongly recommended by some, that fistulæ should be suffered to break spontaneously, as it was supposed that by this means the circumscribed hardness which attends them would be removed; and, indeed, this effect is generally produced in a greater or less degree. But it should be remembered, that while this cal-
losity is dissolving, the cellular substance (which is in large quantity here) is much more easily acted upon by the confined matter than the cuticle, which is firm and dense, so that the intestine has sometimes been laid entirely bare by it.

It is well known that this effect has been produced on both sides of the gut, but it generally takes place on one side only. When this occurs, if an opening be not made, either by nature or by art, the matter perforates the intestine, and is discharged per anum with the faeces, or per se. This modification of the disease is termed *fistula occulta*, because the orifice is imperceptible. Though it differs but little from those called complete and incomplete, the nature of the disease is the same; the situation and number of orifices constitute the variety, the complete having both an external and internal opening, the incomplete an external one only. These distinctions are of but little moment, as the plan of treatment is the same in all; but the ill consequences arising from such abscesses
being left for any length of time for the purpose of dissolving the callosity which attends them is so evident, that at present the practice is almost universally abandoned. It must, however, be confessed that they are still frequently allowed to remain too long unopened; but this is entirely owing to the difficulty of ascertaining the real state of the abscess, for the density of the skin is here so great, that the fluctuation of matter cannot so readily be discovered as in many other parts of the body. We can only conjecture, that suppuration has taken place from an abatement of the more violent symptoms, and from a diminished temperature of the inflamed part. In some cases (especially when the young and plethoric are attacked) this inflammation is very great, and its influence often extends to the neighbouring parts, as to the bladder, hæmorrhoidal vessels, urethra, &c. producing strangury, piles, and a variety of other disorders, which require the utmost care and attention of the physician.
There are but few diseases for the cure of which a greater diversity of methods have been recommended, or a greater variety of instruments invented and used, than for that of fistula. The intention of all appears to have been the same, viz. to produce an union of the sides of the sinus. This is effected either by a complete division of it into the intestine, or by exciting artificial inflammation, so that the sides may adhere. The first is the best and only plan in which we ought to confide; but a dread of the operation often prevents its being employed, and the surgeon is obliged to have recourse to other means: thus the seton, caustic, and injection have been alternately tried. The first appears to be the best of the three, and may be performed as follows:—A skein of silk, or part of one (according to the diameter of the sinus), is to be introduced at the orifice,
brought out through the intestine and properly secured. This extraneous body, by irritating the part, produces considerable inflammation; and one or more threads being daily withdrawn, the cavity is gradually allowed to contract, and a complete cure is often effected. This is the most successful method whenever a division of the sinus cannot be obtained; and, notwithstanding its apparent severity, it is, in reality, much milder than that of the caustic. The use of the caustic was adopted from an idea that it possessed the power of causing the sinus to contract, and of preserving a large orifice, by which the lodgment of matter was guarded against; but on account of the ill success and great pain attending its application, it has been very properly long since laid aside. Injection (the third mean) is that to which recourse is at present generally had whenever the operation cannot be performed. The liquid for this purpose usually consists of a solution of corrosive sublimate in the proportion of about a grain to an ounce, which is
injected into the sinus two or three times a day, for the purpose of exciting inflammation. This effect is indeed frequently produced, but a cure is seldom obtained by it, especially where the diameter of the sinus is great; in which case it almost always renders the sides callous before any union can take place: for, granting that the inflammation thus excited is sufficient to complete an adhesion between the sides of the cavity, still, as these are not in contact, and as we have on means of applying the necessary pressure here, the attempt must fail in nine cases out of ten, and the fistula be left in a much worse state than before the remedy was exhibited. After the injection has been found insufficient for the cure, an operation must be performed as the last resource. When this is concluded upon, the patient is allowed to stand, his body reclining on a table, and an assistant is placed on each side for the purpose of separating the glutæi muscles. By these means the part is rendered more conspicuous, as well as more convenient to the operator, who is
to be seated on a chair behind the patient. The surgeon is first to examine the depth of the sinus, by means of a probe, and to ascertain its direction, particularly whether it has perforated the intestine or not; the fore-finger (previously oiled) is then to be introduced into the rectum, and, at the same time, the curved probe-pointed bistoury (the most approved and convenient instrument for the purpose) into the sinus.

If the intestine should not be pierced by the matter, it must now be done by means of the bistoury, so that its point may be felt by the finger in ano. The finger and point of the instrument are to be kept in contact, and brought out at the same time, so that the parts between them may be completely divided.

Sometimes there are several external orifices to be observed, which have been taken for as many separate sinuses; but they more frequently lead to one general cavity, and should be laid open in the same manner as the first. In this operation, as well as in
every other, it is necessary to preserve as much of the cuticle as possible, particularly if it be any part of the sphincter ani; a simple division of which is but of little consequence, as it generally unites in a short time; but where any considerable proportion of it is destroyed, an irreparable injury is produced, since the patient becomes unable to retain his faeces; an inconvenience which often proves greater than that of the disease itself.

The latest authors, in treating of this subject, say, that a complete division of the sinus is sufficient to effect a cure, and that the removal of any part is quite unnecessary. This may indeed be true so far as it respects cases unattended by any callosity; but where the cuticle is separated and callous, I have found, in several instances which fell under my own observation, that no adhesion took place, although every proper mean had been tried, and a removal of it became at length indispensably necessary. Where an abscess has produced the fistula, and where the matter is still confined, it is best that the opera-
tion should be performed at the same time that the abscess is opened; the additional pain is but small, and the patient is preserved from considerable anxiety, which the idea of a second cutting will inevitably produce. After the operation is performed, the wound should be dressed with lint, either dry or covered with some soft ointment; but the former is to be preferred, as it will more completely absorb the matter, and retain its situation a longer time. Where there has been a large quantity of pus discharged, it is necessary that the sore should be pretty well filled with lint, since a sudden subduction of the stimulus of the confined matter would induce a direct debility or collapse of the part, which might prevent adhesion from taking place.

After the dressing has been applied to the wound, it will be most easily kept in its place by the use of the T bandage. The first application should be allowed to remain until a free suppuration is produced, as it then comes easily away without giving any
pain. The sore should then be dressed lightly every day with some mild ointment, taking care to keep it as clean as possible. If fungus flesh should appear (which is very common in this as well as in many other ulcers), it is easily removed by applying the lunar caustic, or the red precipitate of mercury.

It is necessary that the patient should be kept as still and quiet as possible after the operation, lest the dressing be displaced and febrile symptoms supervene. Where the system labours under any other complaint, such as syphilis, scrofula, &c. whether the fistula be a consequence of these, or arising from idiosyncrasy of constitution, they will (if attention be not paid to their removal) greatly protract, if not entirely prevent a cure. Where it arises from syphilis, the exhibition of mercury should always precede the operation; for where the constitution is affected, local applications alone will avail but little. Where great debility supervenes, tonics, such as wine, Peruvian bark,
&c. should be freely given, as these are best calculated to strengthen and invigorate the system.

This mode of treatment will in general restore the patient to perfect health; but should it fail to produce this effect, and should the discharge still continue, a seton placed near to the part affected has often proved very useful, by diverting its course; but sometimes it will continue although every mean of relief has been exhausted. Under these circumstances it proves not only very debilitating, but is the origin of much anxiety to the patient.

It is said that fistulous ulcers situated in ano are as readily cured as those in any other part of the body; but experience has shown that they are generally much more tedious. This may in some degree be explained, by reflecting on the peculiarity of situation; for when the intestinum rectum and sphincter are divided, it is certain that the faeces will obtrude themselves into the wound, which it is of course impossible to preserve in that
cleanly state so essential to its cure; and of rest (which is equally necessary) the parts here are totally deprived, since the alternate contraction and relaxation of the sphincter and levatores ani must tend to lacerate the fibres and prevent their union.

THE END.