Practical remarks upon stricture of the rectum, especially in relation to its connexion with fistula in ano, and ulceration of the bowel, with a new and improved form of bougie for the treatment of this affection / by Jolliffe Tufnell.

3

PRACTICAL REMARKS

UPON

STRICTURE OF THE RECTUM,

ESPECIALLY IN RELATION TO ITS CONNEXION WITH

FISTULA IN ANO, AND ULCERATION OF THE BOWEL:

WITH

A NEW AND IMPROVED FORM OF BOUGIE FOR THE TREATMENT OF THIS AFFECTION.

BY

JOLLIFFE TUFNELL, F.R.C.S.I., M.R.I.A.;

SURGEON TO THE CITY OF DUBLIN HOSPITAL,

ETC. ETC.

DUBLIN:

PRINTED AT THE UNIVERSITY PRESS,

BY M. H. GILL.

1860.

[From the Dublin Quarterly Journal of Medical Science, August, 1860.]

PRACTICAL REMARKS,

&c. &c.

It is not my intention on the present occasion to enter into a lengthened dissertation upon the pathology of stricture of the rectum, and of the various causes leading to its production; but rather to offer a few practical observations upon its treatment, especially in connexion with the introduction into practice of a mode of dilatation at once simple, effectual, and safe; since any improvement that can be effected in the treatment of a disease so insidious in its approach, so distressing in its effects, and so fatal in its consequences when neglected or overlooked, as stricture of the rectum, cannot, I believe, but be more or less acceptable.

I have personally experienced so much benefit from the employment in practice of the form of instrument which I am now about to recommend, and found it to possess such advantages over all the other kinds of bougie hitherto in use, that I can most confidently advocate its general adoption in all cases where treatment by dilatation is desirable.

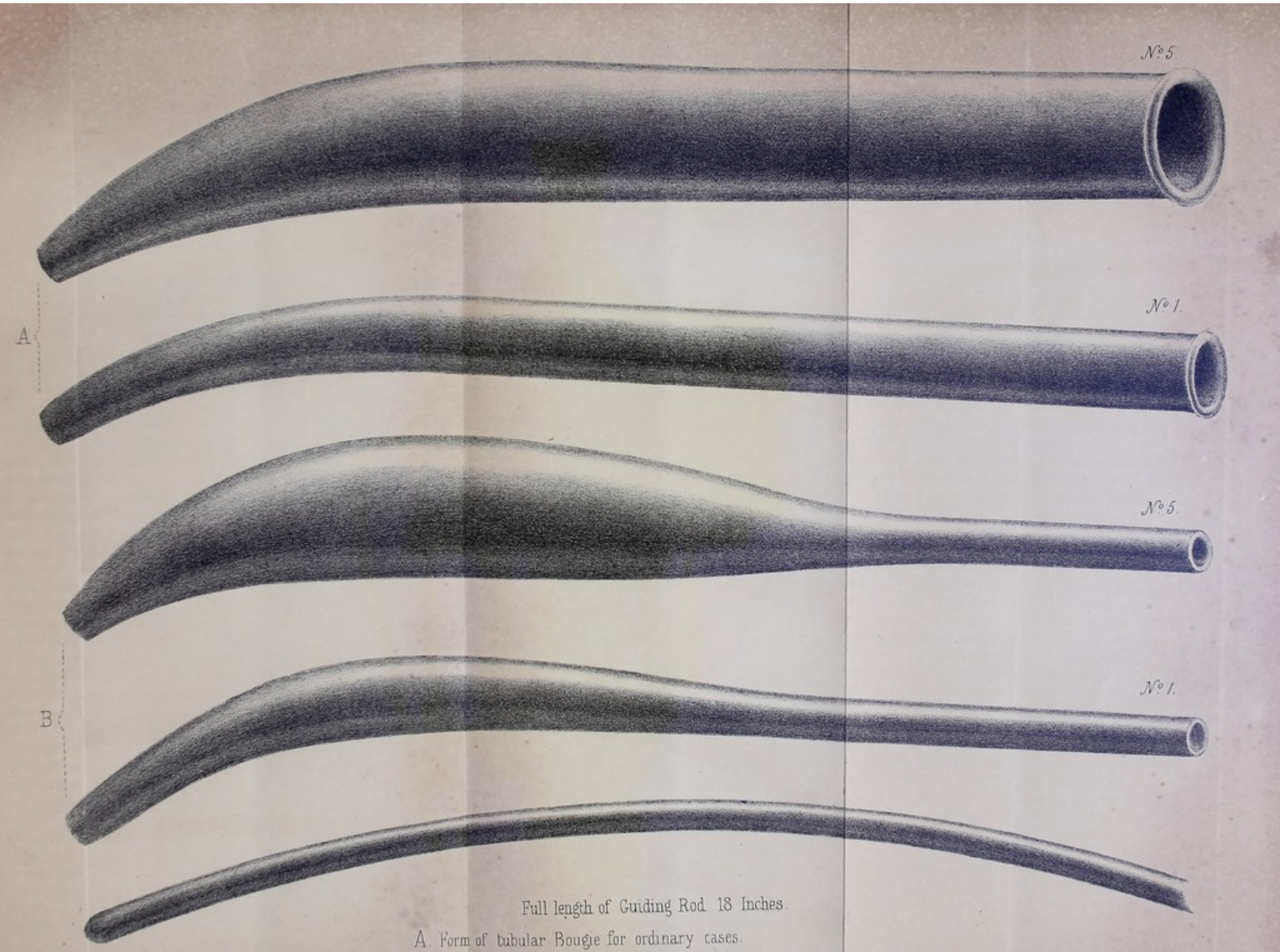
I do not, of course, anticipate favourable results in strictures so highly seated as to be out of direct command; but these are exceptional cases, and, in the vast majority of instances as they occur in practice, the stricture will be found so situated as to be readily amenable to treatment; and, no matter how much the general health of the patient may be broken down (provided the attendant cachexy be not consequent upon malignant disease or phthisis, but the breaking up of the constitution occasioned by the stricture) in every such instance will health be restored upon the disease being overcome. I recommend it, then, for all *accessible* cases of stricture of the rectum, where, as the result of simple inflammation, the disease engages the mucous and sub-mucous tissues with the fibro-cellular coat of the intestine, and where these strictures have be-

come blended together into one firm, homogeneous mass, wholly or partially engaging the circumference of the bowel, thereby rendering it undistensible, and preventing it from responding to that sympathetic action of the bowel which in health induces a regular delivery of its contents.

Whether this state of things be idiopathic, or following upon the cicatrization of one or more ulcers, as occurs often in the progress of dysentery, is, as regards the mechanical treatment, a matter of no importance; although of vast consideration in reference to the constitutional measures to be adopted. In the present case (that now about to be detailed), I do not hesitate to conclude that the stricture arose as a consequence of dysentery, because this disease, in a severe and chronic form, had pre-existed.

The case itself I shall now proceed to describe, together with the circumstances connected with it, which led me to construct the instruments for its relief which I have figured in the plate attached, and which from experience I can so strongly recommend. The case is as follows:—In the summer of 1858, I was consulted by a gentleman, aged 42, for fistula in ano. His general health was greatly impaired; he was nervous and irritable to a degree; he had no appetite, and what little food he did take, he was unable to digest. He bore the appearance of a man who had suffered from climate, and, in reply to my inquiries as to tropical residence, he stated that he had been in India for some years, but had been obliged to return in consequence of his health giving way. Upon questioning him as to his antecedents, he stated that from childhood he had never been very strong; that he was delicate, and, as far back as he could recollect, had been always suffering from indigestion and derangement of the *primæ viæ*.

In 1839 he went to India, being then upwards of 20 years of age. On board ship he suffered from constipation, and, shortly after his arrival in the country, had acute inflammation of the liver, which was succeeded by dysentery, for he stated that he had frequent discharge of stools of a mucous character, tinged with blood, accompanied by great straining and tenesmus. For this attack (which he himself believed to have been one of piles, but which was evidently of dysentery, in a sub-acute form) he was freely leeched around the anus. He did not, however, permanently recover, and after several consecutive illnesses of more or less duration, was, in 1846, obliged to return to England, and relinquish the position he held. He was now suffering from urgent and frequent calls to stool, with straining of the bowels, and great irritation of the urethra, the alvine evacuations being of scybalous character, and he



Full length of Guiding Rod 18 Inches.

A. Form of tubular Bougie for ordinary cases.

B. Form of tubular Bougie for cases which will not tolerate the presence of any instrument which distends the Sphincter ani.

suffered frequently from rigors. He continued in invalid health, sometimes a little better, but always more or less in pain, until 1857, when an abscess formed by the side of the rectum, which burst and degenerated into fistula. All his symptoms now became aggravated, and from this date until July, 1858, his life was one of continued misery. It was now that I first saw him. Although dreading the operation, he felt compelled to submit to it, and it was with a view to having it performed that he sought my aid. The shattered condition of his health at this time might have induced a suspicion that he was labouring under pulmonary disease; but careful stethoscopic examination gave no such indication, and the whole history pointed to the alimentary canal as being the seat and origin of his disorder. In consequence of his extreme sensitiveness to pain, and general apprehension and shrinking from examination of the bowel, I deemed it advisable to place him fully under the influence of chloroform, and it was whilst in a state of perfect anæsthesia that I was enabled to make the searching examination which informed me of the full and extensive state of the case. I need hardly observe that the fistula was but a mere concomitant of the more serious disease which existed in the form of organic stricture of the bowel, all but obliterating the canal with the cavity of the intestine below in one mass of ulceration, the membrane almost hanging in shreds. The indication as to treatment was evident; a passage for the intestinal contents *must* be speedily effected, or the patient succumb to the wearying consequences of the disease. The aperture existing in the stricture was so small as barely to admit a fine urethra bougie; it was, in fact, all but closed. Any attempt to introduce an ordinary rectum bougie would have been out of the question, for not the slightest pressure of a continuous kind could indeed have been borne by the patient. Under these circumstances it became necessary to resort to some method that would enable me to *command* the stricture, and for this purpose I determined to adopt a modification of Hutton's railway catheter, or Wakley's urethra tube, and so, penetrating the contracted mass, gain access to the gut above, and evacuate the contents lodged in the intestine, thus obviating the constitutional distress under which he was suffering. I did nothing more at that visit, but, prior to the next, provided myself with the following apparatus:—I took a piece of very fine gutta percha cord, equal in size to about a No. 8 urethra bougie, and in length 18 inches; next, a portion of gutta-percha tubing (just sufficiently large to pass freely over the cord), and, softening one end of this tubing in boiling water, I drew it out so as to make it slide *with a feather edge* over the central rod or

guide. In this way I at once secured the command of the stricture, and, by manipulating the solid piece of gutta percha through the stricture with my right hand, guided by the forefinger of the left, and sliding the tubular sheath over, I was enabled to pass unhesitatingly through the narrowed portion of the gut, to dilate the stricture itself, and also to discharge through the central cavity of the bougie the secretions and excretions which were detained in the intestine above. Each and all of these objects were at once obtained, and the rectum unloaded to an extent which it had not been, I believe, for years before. The progress of the case from this moment was most satisfactory. The bougie thus introduced was passed at first every third day, and allowed to remain in for nearly an hour; after this, every fifth day, and longer retained; subsequently, once a fortnight, and the size correspondingly increased, until an instrument of the dimensions of No. 5 in the illustration passed readily through the stricture.

The general health of the patient rapidly improved, and all the sufferings which he had formerly attributed to the fistula ceased; indeed, the little that its presence really had to say to the case is proved by the circumstance that he has declined to have it operated upon since, preferring to submit to the slight annoyance which it does occasion than to be subjected again to division.

Now, in disposing thus summarily of this case, let it not be supposed that the mere dilatation of the stricture was the only matter considered in the treatment, or that even the mode of introduction and the passing of the bougie are not subjects requiring judgment, and of the greatest importance in the conducting of the case. The remarks upon treatment, general and local, of stricture of the rectum, which I should have to make upon the case now before us, are applicable to almost every other, and, therefore, I shall beg to offer such observations as may bear upon the subject generally. I shall first take the "local treatment," and under this head bring to notice the following essential points, viz:—

1. The form of bougie to be employed.
2. The question as to the administration of chloroform during introduction.
3. The position of the patient during this time.
4. The period during which the bougie should be retained.
5. The after-treatment by injections, plain or medicated.
6. The question of division by bistoury.
7. The treatment of coexisting ulcers of the bowel, and fistula in ano.

Firstly, as to the form of bougie to be resorted to. These

instruments, as hitherto employed, have been variously constructed as to material, consisting of wax, gum-elastic, ivory or bone, polished metal and membrane; but all similarly circumstanced in this one respect, viz., that they have had no central cavity admitting of an artificial exit for the intestinal contents, and entrance for such medicaments as the surgeon may choose to apply to the structures implicated in the disease. It would be a contradiction were I now to introduce an instrument purporting to be superior, and advocate then the employment of any other; but it is not from prejudice or fancy that I recommend its adoption, but from the conviction that in practice every object that can possibly be obtained by the old pattern is equally gained by the new, with additional advantage. Being a hollow tube, no sooner is the central guiding rod withdrawn, than free exit is given to mucus, pus, blood, or other fluid secretion which may be lodged in the pouch-like cavity which exists almost invariably above the stricture; and not only are these otherwise retained, and decomposing matters drawn off and got rid of, but, by fitting the nozzle of a syringe to the free end of the bougie, by means of a coupling-joint of vulcanized rubber, a stream of tepid water may be gently thrown up into the cavity of the intestine above the stricture, breaking up any solid lump of fæcal matter that may be lodged, thereby freeing the patient of the accumulation which forms the main source of irritation, and relieving him from the principal cause of suffering in this disease.

I advise, then, for the reasons stated, the employment of a tubular gutta-percha bougie, of suitable dimensions, and of one or other of the forms depicted in the illustration; the small stemmed for preference, if the bulk of the larger be considered as likely to prove a source of inconvenience, by its distending the anus.

Next, as to the administration of chloroform during the introduction of the bougie. Now, however useful the employment of an anæsthetic may be for the purpose of making any primary or exploratory examination of the bowel, I am satisfied that the subsequent distention of the stricture by the bougie should not be carried on under its use, and for this reason, namely, that an undue amount of injury is likely to be inflicted upon the intestine when the patient is unconscious, which will be afterwards resented by the system; and fever or feverish action may be excited in consequence, from which the health of the individual will correspondingly suffer. So far, indeed, from time being gained, and the process of cure accelerated, it will, in all probability, be materially retarded by so doing.

The plan now introduced affords the means of conducting

a bougie safely and *certainly* through a stricture, no matter how contracted the orifice, how tortuous its course, or how diseased the coats of the intestine may be. Still, this is no reason why its power should be abused. Instead, therefore, of any violence being exerted, the utmost gentleness should be employed in its use. The bougie should be but *coaxed down*, as it were, over the guiding rod, and then through the stricture with a slightly spiral motion, and a steadily impressive force.

Thirdly, the position of the patient during its introduction. Here the sex of the individual must be the determining agent. If a female, the bougie must be introduced whilst recumbent upon the right or left side, as most convenient to the surgeon himself; but if a male, the lithotomy position is to be preferred, because it gives a more perfect command to the operator over the parts concerned, and his power of conducting the bougie and steadiness in progressing it are infinitely greater. As soon, however, as the stricture is passed, and all difficulty overcome, then let the patient turn over upon his side, and lie, warmly covered up, for whatever time may be appointed for the retention of the instrument. I say warmly, because I have found in these cases that (as a general rule) there is an extreme sensibility to chilliness, and that the individual will feel much more comfortable and less uneasiness, if this apparently trivial point be attended to. As for the period of time during which the bougie should be allowed to remain in the stricture, this must be regulated entirely by the patient's feelings, and will, of course, also be influenced by the amount of distention exercised over the stricture. The object is to promote absorption of the effused and consolidated matter encircling and encroaching upon the intestinal tube. To effect this object, the pressure exerted should be *as long continued as possible without causing irritation*, and therefore the motto, "festina lente," should always be borne in mind. Much will be effected by coaxing, whilst but little will be done by force, and the size, therefore, of the instrument chosen should be such as can be passed without giving much pain[a] to the patient, and such as he can retain for a considerable while, an hour at the very least. Much more will be gained at first by the introduction of a single instrument, every other day, for some time retained, than of a large one passed at longer intervals, and only for a brief period on each occasion. The term which is often employed in reference to these cases regarding the introduction of the bougie, that it is to be repeated as soon as the patient has *recovered*

[a] Uneasiness must be expected, and tolerated willingly.

from its previous insertion, should be carefully expunged in practice. No introduction of a bougie should ever be permitted to inflict an injury that requires to be recovered from. In passing the bougie, too, there is much to be gained both in effecting its introduction, and afterwards by the selection of a properly considered medicine for lubrication. Sweet oil is not to be employed if lard can be procured; but, in preference to either, the following ointment should be used:—Powdered opium, ½ a drachm; strong mercurial ointment, 1 drachm; cold cream, ½ an ounce; spermaceti ointment, 1 ounce.

This should be liberally smeared over the extremity of the guiding rod, and over the bougie itself, or, rather, so much of it as will be passed up into the bowel. The object of this combination is to afford to the mucous surface of the rectum the advantages which will be gained from the sedative and absorbent actions of the opium and mercury thus brought into direct contact with the diseased structures, and the uneasiness necessarily caused by the introduction of the bougie correspondingly lessened. The quantity of opium may be increased, but, from the large amount that will be carried in upon the bougie, it is as much as can at first be safely employed.

In other cases the ointment of belladonna, of the pharmacopœial strength, may be employed, but the opiate is that which I prefer.

The period for retaining the bougie in the stricture having expired, the next proceeding is to inject a stream of tepid water through its centre into the rectum above, the amount thrown up being regulated by the patient's feelings, repeating each successive quantity until the water returns clear and free from fæces, thus proving that the intestinal tube is free from lodgment. The injection of water may be followed by that of a small quantity of any astringent solution, which the surgeon, (according to the nature of the case) may wish to introduce into, and leave in, the cavity of the bowel. Thus, in some instances, the infusion of matico, made of double the ordinary strength, or in the proportion of one ounce of the leaves to eight ounces of boiling water, will answer well in tending to assist in contracting in the walls of the pouch-like cavity above the stricture; whilst in others, which are accompanied by much discharge of pus or muco-purulent matter, indicative of ulceration to a considerable degree, the nitrate of silver, increased from two grains to ten grains to the ounce, may be preferred; and, if the surface be inclined to bleed freely, of gallic acid, in the proportion of twenty grains to a wine-glass full of mucilage of gum-arabic. These several applications are to be injected in small quantities, that is to say, not exceeding a couple of

ounces, and permitted to remain. By these means a stimulus is given to the bowel, when unduly dilated, to contract, and to the ulcerated surface to heal in.

It may be asked, however, whether time might not be gained by combining the use of the bistoury with that of the bougie, by notching the stricture upon its internal margin. Such a line of procedure is applicable only to what may be designated as the *pack-thread* variety of the disease. Here it will be useful, and should be cautiously had recourse to; but, for the densely firm, continuous stricture, it is unsuited. Nothing is to be gained by making incisions into the sides of a stricture of this kind.

There is yet another point to be considered, and that is the treatment of those affections which so frequently coexist with the disease—I mean ulceration of the bowel above or below the stricture, and fistula in ano. Of the first of these I have already disposed by recommending the use of topical remedies by injection; of the second, we may say that the stricture of the rectum is the one object primarily to be considered, and until it is removed, and the integrity of the intestine restored, no treatment need be thought of, for, so long as the stricture exists, the fistula, although divided, will not heal. First let the stricture be removed; then, having opened a passage for the fæces, let the fistula be laid open *thoroughly* and throughout. To effect this properly, the patient should be placed under the influence of chloroform, and a bivalve speculum introduced; the rectum is next to be dilated so as to afford a full inspection of its interior, and the fistula should now be divided in its entire length, from the external opening to the inner, no matter where it be placed. If above the stricture, then the bistoury must be carried fully and fairly through it; and, if below, all intervening structures must be severed equally in the same manner, and dressed from the bottom in the ordinary way.

Now, in these cases there is always a risk of hemorrhage; from the depth of parts to be divided, and the enlarged state of the vessels; and thus it is that the employment of the speculum is so desirable in performing the operation. By its medium the surgeon is enabled to *see* the effect of his incision; to watch, as the knife cuts its way inwards, the effect of the division of the parts, and to note whether any vessel of size is wounded, and if, from the bubbling up of blood, he has occasion to anticipate serious hemorrhage, he must take steps to suppress it at once. No time should be lost, for individuals who are the subjects of stricture of the rectum and fistula in ano combined, will not bear any depletion whatever. Before resorting to the operation, therefore, the surgeon should be

prepared for this emergency, and have with him two or three pieces of wood, the size and strength of an ordinary drawing pencil, flattened at each extremity, and with a dossil of lint wound tightly round and secured. This should be dipped in solution of perchloride of iron, and pressure made upon the bleeding point until it cease, when a piece of ice the length of the finger, and about twice the dimensions, should be thrust up into the bowel, the divided fistula quickly dressed with lint from the bottom, and the speculum then, and not till then, removed. I need hardly say that in these cases the surgeon should, in private practice, always take the precaution of having an assistant with him, for it is impossible for any man, unaided, safely to keep up the effects of the choroform, and do all else that is required.

The measures here detailed include nearly all the points necessary to be considered in connexion with the local treatment of this distressing disease and its complications. Let us now turn to the general management of a patient suffering from stricture of the rectum, and other points to be regarded in connexion with the system at large.

These we may class under the following heads, viz.:—

1. Those measures which will alleviate suffering and afford sleep.

2. Those which will improve the conditions of the secretions, which are generally greatly depraved.

3. Those which will greatly increase the peristaltic action of the intestines, and lessen the disposition to scybalous formation.

4. Those calculated to support the general health, viz., diet, exercise, &c.

Now, as to opiates, they are to be deprecated as a general rule, and their habitual employment got rid of as quickly as possible. Often, however, we find the patient to have acquired the habit of taking a very large dose of morphia or opium, in some form, for the purpose of procuring rest at night, and it is very difficult to induce the individual to forego its use. In malignant cases, those affording no hope of recovery, every means calculated to lessen the misery of the patient should be resorted to; and if the individual finds temporary relief from narcotics, by all means let their use be persisted in, and to any degree whatsoever that may tend to reduce suffering and pain; but, in curable cases, opiates, I say, should be employed as little as possible, from their tendency to induce constipation. When ordered internally, I prefer their employment in the form of Dover's powder, given in combination with grey

powder, in very small doses; or, if administered by the rectum, as hard opium in suppository, or the ordinary tincture for injection. From opiate liniments and plaster rubbed into or applied over the parts in the vicinity, I have never seen any real benefit derived; but the former may be resorted to unhesitatingly, as to the fear of any ill consequences from constipation, in the cases of irritable patients, and may, perhaps, be useful as satisfying their wishes, and thus producing a calmative effect upon the individual.

From improvement of the condition of the secretions, and the production of a healthy action of the bowels, the utmost benefit will be derived, and the most unremitting attention must be paid to these points. For the first, the employment of tonics is almost in every case demanded, and especially in those succeeding to dysentery contracted in the tropics; for these cases the infusion of chiretta, suitably combined, will be found extremely useful, seeing that it has a tendency to relax rather than confine the bowels, and at the same time to favour the secretion of bile; whilst its febrifugal properties are calculated to meet any lurking disposition to ague still happening to remain in the system. Taraxacum, too, both in the form of extract and liquor, may be advantageously added to the chiretta, or employed alone. Cascarilla, calumba, and camomile, with many others, may be resorted to; but there is none that, for the cases mentioned, can be compared with chiretta. As an alterative aperient, and tonic, the following will be found generally useful, viz.:—Mercury and magnesia, 10 grains; powdered capsicum, 10 grains; pill of aloes, 20 grains; compound iron pill, 30 grains; glycerine, *q. s.*: divided into 20 pills; and two taken night and morning, or at bed-time only, as occasion may require.

But, with regard to the state of the bowels, whilst urging the necessity of the utmost attention being given to them, and to the regular evacuation of their contents so as to prevent accumulation, I cannot too strongly deprecate the habit which is sometimes adopted, of endeavouring to force the fæces out of the intestines by keeping up a continued purgation. No; the health and comfort of the patient will depend, and greatly depend, upon a point generally overlooked, viz., the keeping of the stools in a pultaceous state, neither allowing them to become hardened or too liquid; for, if scybalous, excessive agony will be experienced in the attempt at expulsion; and, if too thin, tenesmus will follow, with most painful scalding of the rectum. Now, these objects cannot be brought about except by great attention to diet, and to this I would, in the next

place, allude. The diet should be varied in kind, but *limited in quantity*. This is the great secret. The digestion in these cases is weak, and any matters passing undigested, decomposing in the alimentary canal, will give rise to distention of the bowels from flatulence, and occasion excessive uneasiness, if not absolute pain. The quantity of food, therefore, taken at each meal should be small. For breakfast, tea or chocolate, with honey and a little toast. In the middle of the day a sandwich; at four o'clock, fresh, roast, or boiled (but very tender) meat, with a few mouthfuls of well-cooked and tender vegetables; and at seven o'clock a little tea and toast again. This amount of food is ample for any one, if assimilated, and the hours specified would, I believe, be found, upon the long run, as those most suitable for the majority of cases. Fish, from the amount of excrement it produces, is not generally to be desired; but in this respect, and indeed, as regards the selection of food by adult patients, I am inclined to consult the appetite of the individual, for one person will digest an article under the stimulus of taste, and from it make healthy blood, that another could hardly be induced to swallow, and which his stomach would decidedly reject. As to dinner drink, for those who can afford it I recommend the use of *good* claret, either plain or diluted with a little water; but in many cases it is better for the individual to eschew fermented liquors altogether. In this respect, however, every case must be separately considered; no general rule can be applied to all. Special rules, as to clothing and exercise, can, however, be laid down for all. The first should, invariably, both for winter and summer, be warm. The dress may and should be light, but it must be warm. I know no disease, not even urinary fistula, in which the patient is more liable to suffer from cold, or to be more annoyed by frequent chills, than this; and during the shivering, the cutaneous action is arrested, and the internal organs and mucous tissues correspondingly congested. Light but warm woollen clothing should be worn, then, all the year round. As to exercise, it should either be carriage or in a boat, at least until the patient has recovered sufficiently to walk without experiencing pain in the pelvic region, and fatigue. Boating will, in general, be found by far the most agreeable to the patient; and for its enjoyment, at all seasons, coupled with salubrity of climate, I know of no place so suited to invalids of this class as the vicinity of the Cove of Cork. I recommend it in preference to all others.

The consequences of stricture of the rectum, then, being so serious; the tendency of this disease, when once established,

to progress, so sure; and the utter impossibility of its ever spontaneously subsiding, so certain—renders it an affection of all others most desirable to meet and treat at the commencement; because in its early stage it can be much more easily removed than when, from its presence, the secondary complications of fistula, distention, or ulceration, with various other complications, have ensued; and it is the duty of the surgeon to let no false modesty on the part of the patient, or delicacy on his, in the case of the sufferer being a female, prevent a proper examination being made in all cases where the symptoms point to organic obstruction of the gut. It is not merely in cases self-evident, such as fistula, polypus, or prolapse of the bowel, that an examination of the rectum should take place, and the condition of its cavity be ascertained, but in all cases of difficult defecation, or long-continued irregularity of the bowel, for the necessity of a correct knowledge as to the actual state of the rectum is as much needed by the surgeon for the right treatment of its diseases as of the vagina and os in uterine affections, and but little objection is ever made by the most sensitive female to such examination when its object and necessity are explained. The consequences of neglected stricture of the rectum, too, are far more distressing than those which succeed to the ordinary affections of the womb. What then, it may be inquired, are the symptoms which necessitate an investigation into the condition of the bowel? They may be thus summarily defined: dyspepsia, with occasional eructations; headach, and a foul gaseous taste in the morning; a constant feeling of fulness of the abdomen, with constipation or irregularity of the bowels; an unsatisfactory discharge of fæces after the use of aperients, and the return of the fluid, more or less, upon the administration of a lavement; pain in the loins and back, with irritation of the bladder and aching uneasiness in the testicles in the male, and bearing-down in the female. After a while, the discharge of mucus, of muco-purulent, purulent, or sanguineous fluid from the bowel, and the fæces in an unnatural condition, either scybalous, like sheep-dung, in small black pellets, or discharged in thin ribbon-shaped strips. All these symptoms, taken in combination, are certain signs of obstruction of the bowel, but all or each may exist in a modified degree, and when, under the ordinarily prescribed remedies, the symptoms do not yield, it is right in all cases to ascertain whether or no the existence of the cause is dependent upon contraction of the intestine, and, if so, to lose no time in trifling and palliation, but proceed at once to the removal of the disease, by restoring the continuity of bowel.

Of the consequences resulting from stricture, some are much more formidable than others. Thus the hypertrophy of the intestine above is rather useful than the reverse, by helping to force out the contents of the distended pouch, and pass them through the narrowed channel as soon as ever a passage by the bougie has been made; but the ulceration of the mucous membrane of this portion of the bowel is equally obnoxious. This cannot be too soon remedied, as fistula in its worst form, viz., that arising above the stricture, is ever prone to occur so long as the ulcerated surface exists; and these fistulæ,—although they do occasionally (as in the case of a preparation in the Museum of the Royal College of Surgeons in Ireland, presented by the late Mr. Colles) dissect, as it were, a new way for the fæces external to the stricture between it and the surrounding tissues, and open again into the cavity of the bowel below, yet such is an exceptional termination,—in the great majority of instances, when consequent upon the ulcerative action, will extend anteriorly, so as to form direct communication with the urinary bladder, and permit of the fæcal matter being transmitted into it; or else, burrowing through the loose cellular tissues around the rectum, make their way to the surface by the side of the anus or through the nates. The cul de sac, too, or pouch-like development of the rectum, when once it has formed, must continue to exist so long as the stricture which originally caused it remains; and the lodgment of the retained fæces in this pouch will of itself prevent the healing of ulcers, because the retained excrement has now become, as it were, a foreign body, and a direct irritant to the parts, so that reparative action is out of the question whilst it remains.

But of every affection, that which most demands a careful internal examination is fistula. Here, in very many cases (such, for instance, as the one now before us), the fistula alone attracts the attention of the patient. It was for it solely that this gentleman sought relief, and to it he attributed all his annoyances. It is true that contraction of the colon itself, or of the rectum very high up, may occasionally occur, but this is an exceptional case. As a general rule, the stricture is distinguishable by the touch, and, once ascertained to exist, and to be non-malignant in its character, steady and judicious perseverance in treatment local, constitutional, and dietetic, combined, will in almost every instance be successful, and restore the sufferer from a state of absolute misery to one of comfort and enjoyment of life. On the other hand, if this disease be left undetected, the patient must sink beneath the effects of gradually increasing irritation and constantly unremitting

pain; and for these several reasons, therefore, I repeat that in every instance where a suspicion exists as to the possibility of the symptoms complained of being dependent upon organic obstruction of the bowel, a full and careful examination should be made.

Mode of using the Tubular Bougie.—The forefinger of the left hand (previously oiled, and having the interstice under the nail well filled in with soap, as also the dorsum of the nail itself, in order to prevent the lodgment of fæcal or other matters) is to be passed up into the rectum, until its tip is firmly fixed in the stricture or against it, and the extent and density of the contraction thereby fully determined. The point of the thumb is then to be applied to the forefinger close up to the anus, and retained as the finger is withdrawn, thus taking an exact measurement of the distance of the stricture from the anus. The guiding-rod is next to be placed alongside of the finger, and an indentation made upon it with the nail of the right forefinger at the point corresponding to the extreme length previously inserted. This done, the surgeon must next make allowance for the extent of the stricture itself, and to this add a further plus amount of at least an inch for the passage of the rod beyond the stricture up into the cavity of the bowel. In this way an exact knowledge is gained of the length of guiding-rod required in order to secure a certain transit through the contracted portion of the intestine. A distinguishable mark is then to be placed upon the guiding-rod, by tying a piece of fine, but strong, white ligature silk tightly round it, which the elasticity of the gutta percha readily permits of being done, the bougie itself still passing freely over without displacing it. A similar mark is also to be tied round the bougie itself at such point as the surgeon may determine, according to the degree of distention which he may desire to exercise over the stricture. These distances, once noted, permanently remain, so that the preliminary steps here detailed are required only at the first examination.

In using the bougie, the left forefinger is to be introduced up to, and, if possible, into the stricture, and the guiding-rod, well lubricated for the anterior third of its extent, is to be passed along the finger until it reaches the contraction, when, manipulated by the right hand, it is to be entered into the stricture, and through it into the cavity of the intestine above, the requisite distance for its introduction being determined by the silk mark, which is to be left visible just external to the anus. The bougie (having been previously well smeared over with the opiate or belladonna ointment) is then to be placed

upon the projecting end of the guiding-rod, and slid along it through the stricture, its length of insertion into the rectum being determined by the silk mark fixed upon it. The guiding-rod is then to be withdrawn, and all pent-up pus, blood, fæcal contents, or air, allowed to escape through its centre. After the full period for the retention of the bougie in the bowel has been passed, plain or other injections, as desired, may be thrown up, and evacuated or not, at the discretion of the surgeon[a].

[a] These instruments may be obtained at Robertson's, 22, Bachelor's-walk, and at Fannin and Co.'s, 41, Grafton-street, Dublin.