A CASE OF
OBSTRUCTION OF THE COLON,

RELIEVED BY AN OPERATION PERFORMED AT THE GROIN.

BY

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THE interest attached usually to cases of Intestinal Obstruction arising out of the obscurities by which they are attended, and the treatment of them by operation, induces me to believe, that the following may not be unacceptable to the Society. Under that impression, and with the intention of placing it in connection with those other cases of intestinal obstruction, of which its members are already cognisant, I have prepared a report for the Society's consideration.

The subject of my report is a man 60 years of age, by profession a wine cooper; thin, and of temperate habits. He applied at my residence Dec. 16th, 1850, complaining of being generally unwell. He attributed his ailment to a cold, which he thought he had taken about five weeks previously, by remaining for a considerable time in a damp cellar. He did not complain of any pain, but his countenance was

depressed ; his eyes sallow, and his tongue coated. There was not any increased frequency of pulse, nor increased heat of skin. Upon inquiry, he stated that his bowels were confined, and that lately he had some difficulty in getting medicine to act upon them. His complaints were considered to be the result of ordinary constipation, and two pills containing grs. x of Pil. Rhei Comp. were ordered to be taken immediately.

17th. After the pills were taken, there was one small evacuation of lumpy fæces, but from this he did not experience any feeling of relief. He was ordered to take ʒj of Castor Oil, which he was to repeat provided the bowels should not be opened before the evening.

18th. By the continued mastication of bread (as instructed), the Castor Oil remained on the stomach four hours, and was then rejected. In the evening he took ʒss of Castor Oil, which was also rejected. This morning he feels worse, his bowels have not been relieved, and he vomits everything taken into the stomach. He complains of pain at the præcordia, and also in the neighbourhood of the cæcum, in which latter situation the abdomen is somewhat tumid, but in neither situation is the pain increased by the pressure of the hand. The skin is hot, the pulse quick, and the tongue thickly coated. The urine is scanty, and on cooling is very turbid from the deposit of lithates. He feels so unwell that he is not enabled to go to business, which he has done up to yesterday.

Ordered a blister, to be applied to the pit of the stomach, the surface of which is to be dressed with lint dipped in R. Opii. He is to take one grain of Calomel with a quarter of a grain of the Extract of Opium, every four hours ; and in the evening ʒjss of Infusion of Senna, with ʒss of Epsom Salts, and ʒj of Tincture of Ginger.

19th. The sickness has ceased, and he feels better to-day. There has not been any evacuation from the bowels, and the abdomen has become more tumid, yet the pain which he spoke of yesterday, is less. The transverse colon can be

traced across the abdomen, distended and tympanitic. The blister has produced vesication.

Ordered to take two drops of Croton Oil on bread, made into pills.

20th. There has not been any action on the bowels, and the abdomen is still more distended. There is some pain over the cæcum, but not in any other part, even when pressed with the hand. The skin is cool and moist. He feels weak, and a troublesome hiccough has supervened, which occasionally distresses him much. He abstains almost entirely from food, from a fear that the taking it will cause vomiting.

Ordered a large injection of salt and water, to be thrown up the rectum; and to take fifteen grains of compound extract of Colocynth with two grains of Calomel.

21st. I requested Dr. Munk to meet me in consultation. The injection had brought away a small quantity of hardened fæces, but the medicine had not produced any evacuation from the bowels. The abdomen has become more tumid and tympanitic, and the sensation of air passing from one part of the abdomen to another, has frequently been experienced by the patient. There is little or no pain, but there is a feeling of distension. He feels weaker, and is evidently more prostrate, and the hiccough is occasionally, but not constantly, very troublesome. Both Dr. Munk and myself think there are strong grounds for supposing that obstruction exists in the bowels, but that at present it is premature to adopt that opinion definitively until further trial has been given to medicine. By way of exploration, the œsophagus tube was passed into the rectum. When introduced to the extent of twelve inches, its further progress was obstructed, and it could not be passed beyond that limit. Warm water, injected through the tube, returned immediately without bringing away any fæces.

Ordered one grain of Aloes, and half a grain of Calomel, every hour. Two drops of Croton Oil on bread to be used as a suppository.

22d. There has not been any relief from the bowels, and the patient is evidently worse. The abdomen is more distended, and the pulse has become irregular and weak.

Ordered to continue the pills.

23d. Symptoms are still worse than yesterday, and the patient has passed a very bad night. There have not been any evacuations from the bowels, and the distension of the abdomen has much increased. The hiccough continues, but the sickness has been stayed; the pulse is very irregular and weak; the countenance is pinched. With symptoms progressively becoming more severe, without reasonable grounds for hope of relief from the further administration of medicine, Dr. Munk and myself thought that the time had arrived when it was our duty to propose operative interference, under the idea that the obstruction of the bowel which, on the 21st, we strongly suspected, did really exist, and was irremediable by other means.

Before adopting that conclusion, we were fully aware of the uncertainties generally attendant upon abdominal section in such cases, and of the undesirableness of such a proceeding, except with the presence of some pretty clear indication of the seat of obstruction, by which our endeavours might be directed. Before proposing an operation, we had, therefore, to determine whether the indications in the present case, of the probable seat of obstruction, tended to remove the objections usually opposed to an operation, such as that the performance of which we now meditated on. In reviewing the previous progress of the case, it was recollected, that in its development the colon had been prominently distended, and nearly its whole course well defined through the abdominal parietes. The inference from this fact was of great importance, for it clearly indicated that the whole of the distended intestine must be above the point of obstruction, and it followed as a consequence, that the obstruction occupied a position near to its lower extremity. A confirmation of this view was derived from the introduction of the œsophagus tube which had been used, per anum, on

the 21st, when it met with obstruction to its passage about twelve inches distant from the orifice. The water injected through the tube had also immediately returned. Considering the whole of these facts in connection, we thought we were justified in concluding, that the obstruction was situated about the sigmoid flexure of the colon, a position in which such obstructions are not infrequently found. We accordingly determined to act upon that conclusion, not, however, forgetting that the conclusion was liable to be erroneous. I had next to determine the particular kind of operation which I would select for performance. Assuming the correctness of our conclusion, that operation which passes under the name of Amussat, appeared to recommend itself by the circumstance of its avoiding the necessity of peritoneal section; and was suggested to me on that account. Yet, as I thought it not prudent to assume that our conclusion respecting the seat of obstruction was certainly correct, I determined to adopt that operation which would at least give me some opportunity of extending my search, provided I did not find the obstruction at the point where it was supposed to be, thinking that the increased probability thus afforded, of finding the obstruction, would be more than an adequate compensation for the little increased danger from peritoneal section. I therefore opened the abdominal parietes near the groin. Assisted by my colleague Mr. Wordsworth, Mr. Tomkins, and Dr. Munk, I made a nearly perpendicular incision, about four inches in length, a little to the outside of the course of the epigastric artery, the lower extremity of which incision terminated a little above Poupart's ligament. This part was rendered prominent by the distended intestine bulging forward, and was selected for the above reasons, as well as for the purpose of avoiding the epigastric artery. The abdominal muscles and fascias were divided in succession, and the peritoneum opened to the extent of about two inches. The colon, greatly distended, presented itself at the opening, with a considerable tendency to protrude; this, however, was ob-

viated by the hand. When a finger was introduced, serous fluid, to the extent of several ounces, made its escape, and when the finger was passed along the surface of the intestine in a downward direction, it came in contact with a hard diseased mass, which appeared to encircle the intestine, and limit the extent of its distension. This was recognised to be a stricture. Having thus clearly ascertained the precise seat of obstruction, and its cause, I proceeded to open the intestine above the part obstructed. This was accomplished at the part which presented itself at the opening in the parietes, by means of a longitudinal incision through the tunics to the extent of about one inch. Through the aperture thus made, half a chamber-utensil full of fluid fæculent matter made its escape, after which the patient expressed himself much relieved. The finger was next introduced, through the intestinal aperture, towards the rectum, when it was ascertained that the colon had been rendered impervious by the stricture, about two inches from the aperture. Having thus satisfactorily accomplished the object of the operation, the wound was partially closed by two sutures, the lowest of which was passed through one of the appendices epiploicæ which lay conveniently for the purpose; this being done with the intention of securing a correspondence between the intestinal and parietal apertures, for the more ready discharge of fæculent matter through the wound. The surface was loosely covered with lint, and the patient replaced in bed. He was but little exhausted by the operation, and did not sustain a greater exposure of the peritoneal surface than is common in the ordinary operation for strangulated hernia. Twenty drops of Tr. Opii were ordered to be taken immediately, and brandy-and-water and beef-tea occasionally.

Dec. 24th. The patient has passed a good night, and is much better this morning. He is cheerful, and talks of his recovery, and of his return to business. The pulse has recovered its regularity, and has more strength. The attendants state that more than half a pailful of fæces has

passed from the wound during the night, and the abdomen has become flat and free from tympanitis.

Ordered nourishment and brandy-and-water, and the parts to be kept very clean by the frequent removal of the discharges which take place from the wound.

25th. He has passed an indifferent night, and is not so well as yesterday. He is more exhausted, and the tongue and mouth are dry. The instructions respecting cleanliness have not been attended to, and the thigh and lower part of the abdomen have, in consequence, remained covered with fæces. He complains of this neglect, and is much irritated. To obviate this, in future, a constant nurse is to be provided.

Ordered 20 drops of Tr. Opii at bedtime, and an addition to the nourishment and stimulus.

26th. He has slept well during the night, and is recovered from the depression of yesterday. His tongue is moist, and his pulse good. He is free from pain, and can bear the pressure of the hand on the abdomen without inconvenience. The surface which was yesterday covered with fæces, is now affected by erysipelas.

Ordered to continue the use of nourishment, and to take half a bottle of wine daily. Collodion to be applied to the erysipelatous surface and surrounding part.

27th. In all respects better. Erysipelas has disappeared. The nurse reports that two stools have been passed per anum, but fæces continue to be passed through the wound. He says he is weak, yet his pulse is good, and his tongue clean.

Ordered, Collodion to be again applied to the surface near the wound, for its protection from fæcal discharges.

Jan. 1st. He has continued to improve since the last report, and several evacuations have been passed per anum. His appetite is as good, or nearly so, as in health. I found him raised in bed eating his dinner. The position has caused a tendency to protrusion of the intestine at the wound. The sutures have ulcerated and were removed, their place being supplied by pieces of adhesive plaster drawn

across the upper part of the wound. To prevent the tendency to protrusion, the patient was ordered to keep in the recumbent position, and a cushion was bound over the part for its support.

20th. The improvement has been uniform since the last report. For some days the wound has been healed, with the exception of that part corresponding to the aperture in the intestine. The mucous membrane of the intestine projects slightly through the aperture of the parietes, which is of sufficient size to admit the point of the finger, nor does it appear to have any disposition to contract. There is but little fæculent discharge at this aperture, and that little is restrained by the use of a pad and circular belt. The fæces are almost wholly passed per anum. The strength has very much increased, and his appetite is excellent. During the last few days he has walked out, and to-day has walked a distance of two miles. It was intended to attempt the dilatation of the stricture by the introduction of bougies through the wound; the passage of fæces by their natural course has been so free, and apparently unobstructed, that this intention has been considered unnecessary to be acted on. The only direction given, is to support the part, and close the aperture by the continual use of the pad and belt.

30th. The passage of fæces, per anum, has again ceased. A bougie having been introduced through the groin, they again partially returned to their natural channel; the greater part, however, pass by the opening at the groin, and some inconvenience has been experienced from their constant tendency to escape. A well-fitted truss has been used with success to obviate this tendency, since the use of which he has suffered but little inconvenience, and has been enabled to pursue his ordinary occupation to the present time almost without interruption.¹

¹ August 20th. To this date the patient has continued at his employment without interruption, nor has he found it necessary to be absent for a single day. The wound at the groin remains nearly as at the last report in January, and the truss effectually prevents the escape of fæces, and, from

The foregoing case furnishes a good illustration of a class of obstructions probably of more frequent occurrence than any other affecting the intestinal canal. In connection with it arise some interesting and important practical considerations. In the first place, it may be worthy of remark, that difficulties and dangers which always attend obstructions, occupying the upper part of the intestinal tube, are, in some degree, mitigated in those forms which occupy its lower extremity; and symptoms, which in the former run their course to a fatal termination, with a rapidity which leaves little time for deliberation, in the latter, are often gradual and insidious in their access, and slow in their progress, so that many weeks may elapse, even when unrelieved, before they become fatal. Exceptional cases, however, not infrequently occur, which demand a promptitude of relief equal to that demanded by any other class. There can be little doubt, that in every case of ascertained mechanical obstruction, protracted delay militates greatly against the success of operative proceedings when ultimately adopted, and on that account should be avoided as far as the circumstances of the case will admit. In this respect the above case contrasts favorably with one of a similar nature, which occurred to me some time since at the London Hospital, and reported in Mr. Phillips's excellent paper on Intestinal Obstructions, published in the Thirty-first Volume of the Transactions of this Society. In that case the thirteenth day of total obstruction had elapsed when I first saw the patient. On the fourteenth day an operation similar to that in the present case was performed. On the following day the patient died. Examination revealed a rupture, to the extent of six inches of the peritoneal tunic, at the transverse colon, which had doubtless taken place through over-distension. On the other hand, it is difficult, if not impossible, to

this circumstance, he suffers very little inconvenience. A part only of the *fæces* is discharged at the groin; the remainder passes naturally, *per anum*. The patient reports himself well in general health, and nearly as strong as before the operation.

determine with certainty the dependence of symptoms upon mechanical obstruction, at an early period of their development; or to distinguish them from symptoms arising from constipations, the result of arrested function. Time alone, in many, makes manifest the true state of the case, and although this involves a necessity of delay, there appears to be no other advisable alternative. The difficulties of diagnosis are, therefore, the principal obstacles to a prudent, yet decided and effective, course of treatment in many of these forms of disease, and it consequently becomes a matter of more than usual importance, and requires the most careful study in each case. The attention which this subject has already received from Mr. Phillips, in the valuable paper referred to, renders it unnecessary that I should enter upon it at large. But I might observe, that symptoms of mechanical obstruction should be admitted with extreme caution, for the reason, that they are more or less common to these and to other affections. Thus pain, constipation, sickness, and distended abdomen, may depend upon mere functional disturbance, and either separately or in combination, while some of them may be absent, or exist in a very slight degree under the actual presence of mechanical obstruction. With respect to pain, little information is generally to be derived from this symptom, which will serve the purposes of diagnosis. In some cases, it is a severe attendant upon obstruction, in others, it is absent, or exists in a slight degree only. It is important to mention, that, when present, it is not generally referred to the seat of obstruction, but to some other and distant part. If relied on by the surgeon as a guide to the obstruction, it may therefore mislead, when the question of the position of an operation becomes a matter to be determined on. Thus, in five cases of obstruction at the sigmoid flexure of the colon, the pain was referred by the patients to the region of the umbilicus, a circumstance illustrative of the little dependence which should be placed upon the symptom of pain in directing the course of surgical proceedings in such cases.

With respect to constipation, although this symptom is present in all forms of mechanical obstruction, it is equally so in some forms of mere functional derangement. In the case of a female, I was witness to the persistence of constipation for a period of thirteen weeks; in that instance it was the result of functional disturbance, and was relieved by the administration of purgatives.

Distended and tumid abdomen is also a symptom common to mechanical obstruction and to functional inactivity, and in both may be attended by uneasy feelings to the patient. Although distension of abdomen may not generally be deemed characteristic of mechanical obstruction, yet when the many other circumstances, which are usually to be considered, lead to the supposition of its existence, it becomes a very important evidence as bearing upon the demonstration of its seat; and, in combination with the information derived from the introduction of the œsophagus tube per anum, will frequently determine the diagnosis with sufficient accuracy for all practical purposes. In availing ourselves of these means, due caution is requisite, for unless this be observed, erroneous conclusions may be the result. The affirmative evidence which a generally distended colon affords, I have hitherto considered sufficiently conclusive that the seat of obstruction occupies its lower part, for the reason, that distension of intestine is limited to that part which lies above the part obstructed. The interference, however, of much fat on the abdominal parietes, or a general distension of all parts of the intestinal canal, may obscure the defined contour of this viscus, which is present in most cases, and render any conclusion from this source uncertain or difficult.

In like manner, the œsophagus tube, when introduced per rectum, will be adequate to detect any obstruction within its reach. But in using it, it is necessary to recollect that the tube may be entangled in the folds and flexures of the intestine, or in coming in contact with an obstruction, may be bent, and return towards the rectum. In the first

case the error may arise of supposing that an abnormal obstruction exists, when there is no such obstruction; in the last that there is not any obstruction when obstruction is present. The latter source of error is detected by the introduction of the finger into the anus. With due care in the combined use of these two means of diagnosis, I believe reliance may be generally placed in them for the purpose of determining the seat of obstruction when it is situated in the lower part of the colon.

When the diagnosis has been thus determined, the consideration arises, what kind of operation is best to be performed in these cases. Two have been proposed and performed, the one by Amussat, and performed in the loins, the other by Littre, and performed in the groin.

In the present instance the operation preferred was that of opening the abdominal parietes at the left groin. Having witnessed its results, and duly considered its details, I am disposed not to regret the preference which I adopted. The operation of Amussat, performed as it is at the loins, has the appreciable advantage of not requiring an opening to be made into the cavity of the peritoneum, by which circumstance the important object is obtained of diminishing, in some degree, but not entirely removing, the probability of the occurrence of peritoneal inflammation. The demerits of the operation, however, are several, and possibly, upon review, will be considered to outweigh the foregoing advantage, even in reference to the question of danger.

Foremost amongst these, may be stated the impossibility of doing more for the patient's relief than opening the colon at the seat of operation; indeed this seems to be the only object for which it can be undertaken. It is, however, important to recollect, in reference to this matter, that obstructions, even at the lower extremity of the colon, may not always be of a character to require such opening, and in some of them the opening of the intestine may be improper. Thus there are obstructions occasionally occurring, produced by fibrous bands overlying the intestine, or by stran-

gulations, in either case the result of causes acting exteriorly to its tunics. The proper treatment in such cases is to divide the bands, or relieve the cause of strangulation. The mere opening of the intestine above the seat of obstruction, would probably be insufficient for effectual relief, since unremoved constriction or strangulation would be likely to continue their ordinary injurious effects upon the tunics of the intestine, and to lead to the most serious of its usually attendant consequences. This demerit derives additional weight from the circumstance of the surgeon's inability to predicate the cause of obstruction, and his consequent liability, on the one hand, to make an opening, and inflict an injury, which the circumstances of the case may not have demanded, and on the other, to leave that unrelieved which the emergency really required.

When the diagnosis is correct, and the opening necessary from causes existing within the tunics of the intestine, experience has amply shown that the lumbar opening is sufficient for the purpose in view of relieving the distended colon; yet, in the event of an error in diagnosis, it does not provide any facilities for its correction, and the surgeon is dependent upon one venture for success. The danger of total failure of affording relief consequent upon this state of things, must therefore be attributable as a demerit to the operation in the loins. It is scarcely necessary to mention, that lesser, but still important, evils result from position of the operation. Thus, in this position, the *feculent* discharges which necessarily continue to pass from the intestine through the opening, cannot be conveniently attended to by the patient himself; while experience has shown that the disposition to contraction in the wound arising from its great depth, may occasionally produce interruption to their escape, and require renewed surgical interference.

In all these particulars, with the exception of the necessary attendant of peritoneal section, the operation of opening the abdominal parietes at the groin, as in the above-related

case, in all cases of obstruction or suspected obstruction in the lower part of the colon, appears to me to be the operation which should be preferred.

It affords facilities for modifying the treatment, as may be advisable after immediate examination of the cause of obstruction, either by opening the intestine when incapable of relief by other means, or by dividing or removing any existing cause of constriction or strangulation. It enables the surgeon to extend his search within a limited range, when his diagnosis of the seat of obstruction has been proved to be incorrect. When requisite and proper, it enables him to open the colon close to, or nearly close to, the seat of obstruction, and thus preserve to the patient, for the performance of its proper function, the utmost extent of intestinal canal of which the case is susceptible ; and it eventually secures to him those facilities for attending to his own comfort, which appear almost a necessary condition to make life endurable under such circumstances.