

one cannot help thinking that from the point of view of both operator and patient the elimination of the rectal electrode is desirable if equally good results can be obtained without it. That this can be done I am sure, as I have treated a considerable number of cases without such an instrument and with the most gratifying results. In all cases, however, the restoration of the musculature of the large intestine has been the fundamental object in view. Apart from its functions of secretion and absorption, the greater enteron being essentially a muscular viscus, it is probable that, once the atonic muscular coats have recovered, a fair chance is offered to the mucosa to follow suit. For if the cæcum can be got to expel its residual contents satisfactorily, which it does not usually do in this affection, the mucous coat will be relieved of its chief source of bacterial invasion or toxic production, and will so far be able to cope with its pathogenic organisms as to render the introduction of the massol bacillus or the removal of the large intestine unnecessary expedients. This I venture to say as there seems no reason to doubt that, once the auto-toxic condition of the patient is eliminated, his phagocytes will be in a sufficiently healthy state to perform their natural function as a defending force.

Have not most of us, if not all, met with individuals of both sexes, who have lived to a ripe old age, performing all their intestinal functions normally, and have never heard of the massol bacillus? If this be so, should not our efforts be directed rather to restoring the bowel to its natural state than to inducing what one might term a bacterial habit? For wherein is the man who daily partakes of his dose of benign bacteria better than he who has nightly recourse to purgatives? Is it not even a remote possibility that our defending legions, relying constantly upon reinforcements of these somewhat doubtful allies, may in time become even more indifferent to their duties and still further dependent upon this artificial aid? This may or may not be so much theory, but I venture to think there will be at least a few who will agree when I say that to effect the restoration of the large intestine is an infinitely better result than its temporary sterilisation, stimulation, or permanent extirpation. Amongst other advantages of the muscular recovery of the large bowel is the important one of rendering the appendix far less liable to become a seat of trouble: first, because of the decreased laxity of its valvular orifice; and secondly, on account of the increased purity of the gut.

In the method suggested for the restoration of this atonic and dilated viscus I lay no claim to originality, as I have merely adopted one which has been used on the continent with the utmost success; but beyond being employed in one or two large general hospitals it is so far practically new to this country. The treatment consists in the application to the large intestine of a faradic current of a high degree of penetration and capable of very exaggerated interruption. The method positively resolves itself into putting the abdominal and intestinal muscles through a variety of physical drill, by which they daily gain in strength and efficiency till their restoration is positively complete.

The circumstances which first led me to adopt the particular mode of treatment I am now about to describe were the following. About ten months previously I had been called to a lady who suffered from chronic constipation, and who on this particular occasion had not experienced an action of her bowels for nearly three weeks. On examination I found that she had a large mass of impacted faecal material at the sigmoid flexure of the colon, the lower gut being perfectly empty. A high tube enema was administered with satisfactory result, and repeated on the following day to make sure that the intestine had been efficiently cleared. Although the operation as far as it went was satisfactory, she soon became entirely reliant on aperients once more. I consequently placed her on a vegetable diet and abdominal massage was daily resorted to, under which treatment she very greatly improved. But alas! she tired of the diet, and the massage, after having been persisted in for two months, was discontinued. But in spite of this for a time she remained better, and it was not till some weeks later that I found that she had relapsed to purgatives and was taking "Somebody's" patent pills regularly each night. It was, however, just at this time that I happened to make the discovery of the particular apparatus I now use, and having inquired carefully into the history and result in several cases

treated therewith, decided, after making a thorough trial of the machine, that I would give the patient above mentioned the benefit of what experience I had in the matter. Having therefore obtained her consent to the adoption of such a course, a series of treatments, which ultimately led to a very satisfactory recovery, was initiated. When treated the patient was placed in a sitting position leaning slightly forward. Two flat leaden electrodes were adjusted next to the skin over about the middle of the ascending and descending colon respectively. A faradic current of about 9 volts, with an ampérage adjusted to the requirements of the patient, was passed for 15 minutes and the current then reversed for another 15 minutes, at the end of which the first séance closed. The next morning there was an evacuation without an aperient. She had about 30 treatments at ever-increasing intervals until the evacuations became normal in consistency and frequency. I may say that I am continuing to have most satisfactory results, and these without the use of a rectal electrode.

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A CASE OF SO-CALLED CHRONIC NEURASTHENIA DUE TO ABDOMINAL ADHESIONS; OPERATION; RECOVERY.

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THE following case presents so many interesting points that we consider it worth publishing.

The patient was a man, aged 41 years. When nine years of age he had had an attack of what at the time was called "low fever." (This was probably typhoid fever, as another inmate of the house subsequently got typhoid fever and died.) The symptoms practically date from this time. For many years past he has been subject to occasional attacks of abdominal pain, so severe at times as to "double him up." The pain generally passed off on getting rid of flatulence. At about 17 years of age he was much troubled with dyspepsia and constipation and a dragging pain in the back. Five years later the patient had his first attack of severe abdominal pain. Whilst taking a cold shower bath he was seized with acute abdominal pain, which necessitated his being lifted out of the bath and put to bed. The pain gradually passed off, and in a few days' time he was able to get about again. No vomiting or pyrexia was present. The patient at the time was much troubled with flatulence. There was no constipation. An east wind or cold weather generally used to predispose to an attack, or any sudden movement—i.e., sneezing, coughing, or sudden shock, like a cold bath. The patient consulted at different times a considerable number of medical men, and the general opinion was that he was suffering from neurasthenia. Purgatives very often brought on an attack. These attacks continued off and on at irregular intervals until February, 1908, when he had his most severe attack. The patient was taking a warm bath when, by mistake, the cold water was suddenly turned on. He was immediately seized with intense abdominal pain and marked rigidity of the abdominal muscles. The pain was situated on the left iliac fossa, radiating to the back, and it lasted for about one and a half hours, but was relieved by antispasmodics advised by Mr. John Pardoe, who saw him during the attack. The following are Mr. Pardoe's remarks describing the attack:—

I saw him about 9.30 in the morning. The attack had then lasted about one hour. Patient was lying flat on his back in bed, perspiring about hands and forehead (not body). Pulse 78, soft and regular. Face calm (until the spasm to be described occurred). Tongue clean and moist. Temperature 97.6° F. Whilst I was talking to him and looking at his abdomen, which was absolutely rigid, respiration being diaphragmatic in character, a ripple of muscular contractions occurred from below upwards along the recti, which were standing out markedly.

It was exactly like peristalsis. The abdominal muscles then were drawn in until it looked as though you could not lay a sheet of paper between the anterior abdominal muscles and the spinal column. The whole thing shortly relaxed and the abdomen was normal again. This happened twice in the space of about ten minutes. During the spasm his face was screwed up and he sweated profusely on the forehead and scalp. Pulse was regular and not quickened. He had a good action of the bowels later in the day, and next day was apparently all right.

In October, 1908, the patient consulted Dr. Bridges, who, thinking the condition might be due to some auto-intoxication in the bowel, put him on sour milk, with the result that he did not have any attack during the following winter months.

On Jan. 31st, 1910, Dr. Bridges was called to see the patient, who was in another attack. On arrival the patient was sitting lying back in an arm chair, leaning towards the right side with his legs slightly flexed, resting on a cushion, quite afraid to move. The pulse was quiet and the temperature was normal. The patient complained of great pain and dragging on the left side of the abdomen, going through to the back. The administration of amyl nitrite relieved the spasm temporarily. After some time he was enabled to get to bed with the aid of two sticks. But it was quite impossible to straighten his back or move his left leg with any freedom. After the attack Dr. Bridges, considering the length of time the patient had suffered, advised him to have the lower bowel thoroughly examined under an anæsthetic.

On Feb. 3rd Mr. Lockhart Mummery examined the patient under an anæsthetic with the sigmoidoscope, and the following are his notes written just after the examination:—

The rectum is normal. About one and a half inches above the recto-sigmoidal junction the bowel takes a sharp turn to the left at an acute angle and is fixed, apparently to the left iliac fossa. (The bowel here should be freely moveable.) This partial fixation of the bowel was confirmed by inflation and by the fact that it is impossible to introduce the instrument any further. Otherwise the bowel appeared to be normal, and nothing abnormal could be felt on bimanual or abdominal palpation. I am of opinion that the sigmoid flexure is kinked by adhesions, probably the result of some previous inflammation. It seems probable that the pain which the patient suffers from is due to severe entero-spasm in the bowel just above the fixed portion.

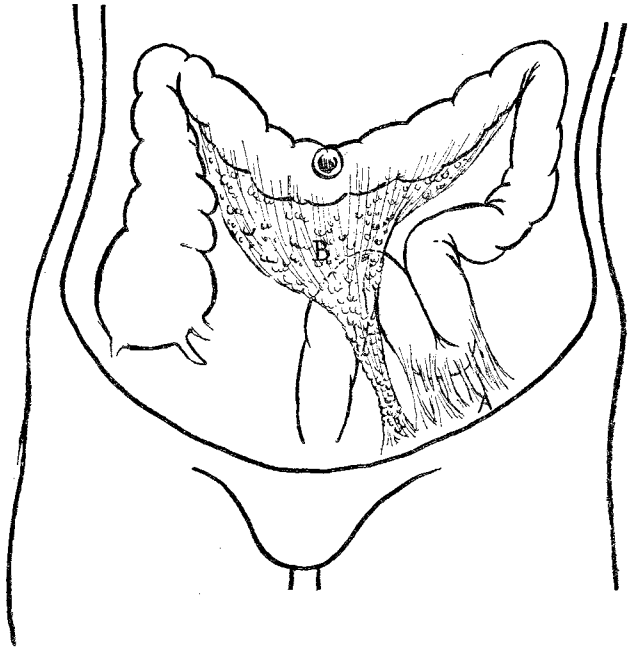
After a consultation with Mr. Pardoe and Dr. Bridges it was decided to perform laparotomy with the object of removing any adhesions and straightening the bowel.

On Feb. 10th Mr. Lockhart Mummery opened the abdomen on the left side through the rectus muscle. On opening the peritoneal cavity a long band of omentum some three inches in length was discovered, the extremity of which was attached to the middle of the left iliac fossa, passing across the sigmoid flexure. This band practically anchored the stomach and transverse colon to the left iliac fossa. Further investigation showed a number of very tough adhesions tying down the centre of the sigmoid flexure to the same spot in the iliac fossa. The spot to which the adhesions were attached in the iliac fossa was about the size of a shilling, and there were no other adhesions anywhere. These adhesions caused an acute double kink in the sigmoid flexure, and prevented this part of the bowel from rising out of the pelvis. All the adhesions were very tough and obviously of old standing. There were no signs of any inflammatory lesion or any thickening or disease of the bowel. Everything else in the abdominal cavity appeared to be quite normal. There was a short normal appendix. All the adhesions were cut through with scissors, and the sigmoid flexure freed until it could assume a normal position and the kinks had been got rid of. The resulting raw surface uncovered by peritoneum was then carefully closed in by suturing the peritoneum from side to side in such a way as to prevent any re-formation of a kink. When this was done the sigmoid could assume its normal position and no raw surface remained. Great care was taken to prevent bleeding during the operation, and to leave the peritoneal cavity quite free from blood clot. The abdomen was then closed in three layers. The superficial stitches were removed in six days, and the patient made an uneventful recovery. The illustration shows the condition found at the operation. Almost directly after the operation the patient stated that he felt more comfortable in the abdomen than he had been for some years, and that the old vague pains had quite subsided.

The case is one of particular interest owing to the abnormal symptoms and the very long time that they had existed. The acute attacks of abdominal pain appear to have been due to violent entero-spasm above the partial obstruction in the colon caused by the adhesions, and it is remarkable that there were very few other symptoms except of a vague

nature. The origin of the adhesions is somewhat obscure, and the only explanation appears to lie in an attack of typhoid fever at the age of nine years, from which time the symptoms appear to have dated.

The case well illustrates the value of a careful sigmoidoscopic examination in such cases, as without it the diagnosis would have been impossible. It is a well-known fact that the mere division of the adhesions is not sufficient in these



A, Tough adhesions anchoring the centre of the pelvic colon to the iliac fascia and causing a sharp kink in the bowel. B, Omentum which on left side was drawn out into a narrow band and adherent to the iliac fossa across the pelvic colon.

cases, as there is a risk of their re-forming. We are of opinion that the best way of preventing this is to secure very careful hæmostasis during the operation, and to carefully cover in all raw surfaces by some form of plastic operation on the peritoneum. In addition to the above precaution, abdominal massage and exercises were used in the present case as soon as the condition of the abdominal wound allowed of this. Care was also taken to keep the bowels acting daily by means of enemata.

The patient was seen a few days ago by one of us, and he had put on a stone in weight since the operation, and now he feels better than he remembers ever to have felt before.

Clinical Notes :

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN OPERATION FOR PROLAPSE OF THE RECTUM.

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THE patient, a female, aged 47 years, was admitted on Jan. 4th to Kettering General Hospital suffering from procidentia recti of six years' duration. The rectum prolapsed during each act of defæcation, the pain being excruciating. For the past year the prolapse would not return of itself, and the patient's medical attendant had frequently to be sent for to reduce it.

On examination the prolapse was found to be 6 inches long, but was easily returnable. There was undue relaxation of the anal parts, the perineum being flabby. A little straining was sufficient to cause the bowel to prolapse. The constant worry and pain made the patient fear defæcation, and she was the emblem of a neurasthenic.

On Jan. 8th the patient was placed on the operating table with the prolapse hanging down, and with the assistance of Mr. G. Watson Hill (house surgeon) the abdomen was