After forty-eight hours, if all be well, babies that have not been weaned may be given the breast again. If this is not possible, they may be carefully fed on one of the numerous prepared foods.

It is as well not to keep these children too rigidly lying on their backs; they may be turned first on one side and then on the other, and occasionally taken up and carefully carried about for a short time.

As to drugs, these children will nearly all require morphine in very minute doses, at varying intervals during the first twenty-four hours. Strychnine and digitaline are also often indicated, and may be given hypodermically. If the child's bowels are not open after the first twenty-four hours, a small dose of calomel may be given. In most cases the bowels are open in the first twelve hours, and the motion generally contains blood and mucus.

The silkworm-gut sutures must never be removed before the tenth day, and I frequently leave them in even longer if they are doing no harm. I have narrowly escaped some catastrophes from the too early removal of the stitches.

It is a most lamentable thing when a child has got over a serious abdominal operation to have its life placed in jeopardy by the bursting open of the wound and the prolapse of several coils of intestine. And this is what may and does happen from the too early removal of sutures. If one or more of the sutures are giving trouble, remove them by all means, but never take them all out until you are sure that firm union has taken place.

AUTO-REDUCTION OF HERNIA "EN MASSE" AS A CAUSE OF ABDOMINAL OBSTRUCTION.*

By W. J. WALSHAM, F.R.C.S.,

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IN this communication I wish to call attention to a cause of obstruction which does not seem to have received much consideration from the profession, but which in my experience appears to be not so very uncommon. All are aware that a strangulated hernia is a frequent cause of abdominal obstruction, and there are but few practitioners, I imagine, who do not make it their routine practice to examine the hernial rings in every case of sudden abdominal pain attended by vomiting and constipation. Some, too, have perhaps passed through that anxious and embarrassing time when, after the apparently successful application of the taxis, the symptoms of obstruction and strangulation nevertheless persist, and have turned hot at the thought that it is possible the rupture has been reduced *en masse*—that is, that the whole sac, with its contents still strangulated at its neck, has been pushed bodily into the abdominal cavity or between the abdominal parietes. When this accident has occurred at the hands of a medical practitioner, though a diagnosis from other conditions that may lead to a continuance of the symptoms of strangulation is often sufficiently difficult, there is generally some clue to what has happened, since it will probably have been noticed that the hernia did not go back with the characteristic slip or gurgle, or that its reduction was attended with some other abnormal manifestation. It is not to such cases, however, that I here wish to direct attention, but rather to a class of case, of which I have met with some six or seven examples, where the patient has himself reduced the hernia *en masse*, and has then come under notice as suffering from abdominal obstruction.

Where a distinct history is obtainable of a hernia having come down and having been reduced by the patient with pain and difficulty, whilst some fullness, an extra sense of resistance, or a loss of resonance can be detected in the inguinal canal or region of the abdominal rings, the evidences in favour of an auto-reduction are pretty clear. Two such cases have come under my notice, one under my own charge, whilst I was surgeon to the Metropolitan Hospital, and one under the care of my former colleague, the late Dr. James Andrew at St. Bartholomew's. In the first case a well-marked fullness in the inguinal canal rendered the nature of the condition perfectly obvious, and on getting the patient to stand up and cough and strain, the sac with its contents readily

came down. The intestine was then easily reduced without any further trouble. The case under the care of Dr. Andrew had been admitted into a medical ward for intestinal obstruction, and I was asked to see it with reference to the question of abdominal section. The rings were free, but I thought I could detect a distinct fullness in the right inguinal canal, over which there was also a greater sense of resistance than over the left, besides some deficiency of resonance. I therefore explored in that region before opening the abdomen in the middle line, and having discovered the hernia drew down the sac and returned the intestine.

But the mere examination of the abdominal rings and inguinal canal alone may lead us into error, for although the rings may be found perfectly free, a reduction *en masse* may nevertheless have occurred, and sometimes even at a considerable period of time before the patient is seen. It is important therefore to inquire if a rupture has recently been down, and if there was any particular trouble in replacing it. We are so accustomed, and rightly, to rely on our own observation rather than on any statement of the patient, especially when dealing with the uncultured classes, that I venture to think we are too apt to content ourselves with an examination of the rings to the neglect of inquiring whether the patient has ever had a hernia, and, if he should be wearing a truss, whether the hernia has recently been down. This was forcibly impressed upon me in a patient I saw some years ago.

A man, aged 45, was admitted with signs of acute intestinal obstruction with absolute constipation, no passage of flatus, and with fecal vomiting which was stated to have begun the evening before his admission. He was suffering from intense pain referred to the umbilicus, but the abdomen was not distended, the rings were quite free, and nothing abnormal could be felt in their immediate neighbourhood.

I was asked to see the case, therefore, as one of acute intestinal obstruction, with reference to opening the abdomen, since it was thought that, as the rings were free, the symptoms had probably no relation to the hernia. On questioning the patient carefully, however, it was elicited that he had worn a truss for sixteen years for a left femoral hernia, that for two or three years the truss had not fitted him well, and that on the previous evening the hernia had come down during a fit of coughing, and though he had some difficulty in reducing it, it had gone back, as he expressed it, with a "pop." Further cross-examination also made it clear that the pain in the abdomen had commenced soon after he had reduced the hernia, and that vomiting had followed in a few hours. This history put a different complexion on the matter, and made the relation of cause and effect seem so evident that, although nothing abnormal was discoverable at the left femoral ring, I determined immediately to explore the femoral region from within the abdomen.

A small incision through the left linea semilunaris was accordingly made, and, on opening the peritoneum, a loop of strangulated gut, still contained in a sac which had been pushed back *en masse* into the abdominal cavity, was at once discovered. The loop was gently drawn out of the sac, and the sac invaginated and cut off after its neck had been tied. The wound was closed and the patient made an uninterrupted recovery.

The experience gained in this case stood me in good stead in one I saw in private about a year afterwards. Here, however, the diagnosis was far from easy.

History.—Ten days before I saw the patient, a well-to-do tradesman, aged 45, he had been seized with sudden pain referred to the umbilicus and region above it. He could not account for the pain in any way, but as he was always a hasty eater, and the whole of the teeth in his upper jaw were false, he suggested that it might be due to indigestion, but he did not remember having eaten anything especially indigestible of late. He had suffered from a double inguinal hernia for years, for which he had worn a truss night and day. He was positive, however, that the rupture never came down. There was no lead line on the gums, and no pain or tenderness in the region of the cæcum, nor was anything abnormal discoverable with his truss or with the hernial rings. He had not vomited. The bowels were confined, the temperature slightly raised, and the tongue somewhat furred. The case, therefore, was looked upon by his medical attendant as probably one of gastro-enteritis. He was accordingly put to bed, and after remaining there on low diet for a week, during which time he passed three or four good motions, he was sent away apparently well for a few days' change of air in the country. Three days after this, that is, nine days from his first seizure, he had a sudden return of pain with absolute constipation soon followed by fecal vomiting, and he at once returned home. A large injection was given, but returned unchanged. It was now evident to his medical attendant that the patient was suffering from abdominal obstruction, and he asked me to see him in consultation with himself and a physician.

Condition on Examination.—We found the abdomen was resonant all over, and slightly distended, and nothing abnormal whatever could be detected in the inguinal, femoral, and other hernial regions. There was neither pain nor tenderness on pressing over the region of the cæcum and at McBurney's point. Fæcal vomiting occurred whilst we were in the house. The patient repeated the statement he had previously made—namely, that he had always worn his truss night and day, and that the hernia never came down. Beyond that we were dealing with a case of obstruction, none of us felt certain as to the cause, the preponderating opinion being in favour of enteritis. Fortunately, however, the patient's brother was in the house, and on putting some further questions to him we elicited that about two months previously the hernia on the right side had come down, and had taken a lot of trouble to reduce.

* Summary of a paper read before the Eastbourne Medical Society.

Operation.—Notwithstanding the freedom of the rings, I at once determined, in the light of the former case, to explore the right inguinal region with the result that I found a loop of intestine strangulated in a sac which had been bodily pushed back into the abdomen. This exploration, however, was made through an incision in the middle line, since my *confères* did not attach so much importance to the history as I did myself, and the incision adopted would have allowed of a better exploration of the abdomen had my diagnosis been at fault. The patient recovered without a bad symptom.

I venture to think this a most interesting case. The patient had evidently pushed back the sac with its contents some two months previous to the onset of his symptoms into the abdomen, where it had remained quiescent till, I imagine, some slight digestive disturbance, by interfering with the circulation through the gut, determined the strangulation.

Yet another somewhat similar case came under my care last December.

History and Condition on Admission.—The patient, aged 58, was admitted into my male ward with repeated faecal vomiting, severe abdominal pain, and constipation. The abdomen was greatly distended, hard, rigid, resonant, and tender all over. No external hernia could be discovered, and nothing was felt in the rectum. The patient was in intense pain, and it was very difficult to obtain any history from him. By persevering in our questioning, however, we elicited that two days before he slipped whilst getting off an omnibus, and a left inguinal hernia, for which he had worn a truss for some years, came down. He could not get it back at the time, but managed to do so in the evening by using a good deal of force.

Operation.—I attributed his trouble to the hernia, and found, on opening the abdomen, that in forcing back the hernia he had ruptured the intestine at the seat of stricture. The wound in the gut was closed with Lembert sutures, and the peritoneal cavity, which was filled with liquid faeces and acutely inflamed, thoroughly flushed out. The patient, however, sank and died the same evening.

I have met with two other cases of auto-reduction similar in many respects to those just related, in which I have been called on to open the abdomen on account of obstruction. But I have not been able to lay my hands on these notes, as the cases were not admitted directly under my care.

During the last few years I have thus met with 7 cases of abdominal obstruction due to auto-reduction of a hernia *en masse*. Unless therefore my experience has been exceptional, I think I am right in concluding that the condition cannot be a very uncommon one.

A review of these cases would seem to show that the diagnosis may be attended with considerable difficulty. I have already dwelt on the importance of not relying solely on our own observation of the hernial rings, but of obtaining at the same time an accurate history from the patient or his friends, not always so easy a task as one might suppose. Thus not only as in other abdominal cases are the patient's mental faculties often dulled through the intensity of the pain and through his anxiety over the gravity of his condition, but he is also frequently partly stupefied by the injudicious administration of morphine or other narcotic. Moreover, he may have effected the reduction *en masse* with very little pain, or, indeed, with very little more trouble than he usually experienced in putting back his rupture, and sometimes, as in one of the cases I have related, at a considerable period from the onset of the symptoms. So little impression therefore may have been made on his mind, that he may altogether have forgotten the circumstance, or may consider it of no great significance, and fail to mention it unless specifically questioned on the point, and not even then, as in the case of the patient just alluded to.

The importance of an early diagnosis can hardly be overestimated. All who have any experience of abdominal operations in which the integrity of the coats of the alimentary canal are implicated know how much success depends upon limiting our manipulations to the smallest possible area, and upon the celerity with which we can complete our work. Given an accurate diagnosis and early surgical interference before the integrity of the intestinal wall has been seriously affected, the strangulated gut can be at once cut down upon, the operation can be quickly completed with very little disturbance of the abdominal contents, and with almost a certainty of success, whereas the reverse would probably be the case if the diagnosis is only made during a prolonged exploration attended by free manipulation of the intestines and consequent general implication of the peritoneal cavity.

THE American Medical Association will hold its fifty-fourth annual meeting at St. Paul, Minnesota, from June 4th to 7th.

SOME PRACTICAL POINTS IN THE DIAGNOSIS AND OPERATIVE TREATMENT OF PERFORATED GASTRIC ULCER.*

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THE subject of the diagnosis and treatment of perforated gastric ulcer is one which has received considerable attention within the last seven years. It has excited the interest of both physicians and surgeons, and caused many instructive papers and statistical tables to appear in our journals.

STATISTICS.

Previous to the year 1893 Mikulicz collected 35 cases, of which only 1 recovered, but within the next three years he was able to collect 68 more cases, with 47 per cent. of recoveries. In the three years, 1895-1897, A. E. Barker collected from English sources 107 cases, with 49 per cent. of recoveries, and Mayo Robson last year gave a list from all sources of 429 cases, with 45 per cent. of recoveries.

I do not lay much stress on the foregoing lists, although fairly extensive, but I would rather trust to the following small lists by individual operators recording honestly both failures and successes: A. E. Barker up to the end of 1897 had operated on 9 cases, with 3 recoveries, or 33 per cent. Mayo Robson up to 1900 had operated on 6 cases, with 50 per cent. of recoveries; and A. B. Mitchell up to the same date had operated on 6 cases, with a similar result. Mitchell also gives a very interesting list of all the cases, including his own, treated in Ulster, which amount to 14, with 7 recoveries, or 50 per cent. We may, therefore, close the old century with the assurance that when failures and successes are added we can claim between 45 and 50 per cent. of recoveries from an accident which but seven years ago was practically a death warrant.

ADVANTAGES OF EARLY OPERATION.

The first thing which strikes us on analysing the statistics is that the time lost between perforation and operation is of vital importance. In Barker's English list 42 cases were operated upon within 12 hours with 76 per cent. of recoveries. After 12 hours the recoveries were only 25 per cent. In his personal list 5 cases were operated upon within 12 hours with 60 per cent. of recoveries, 3 were operated upon after 24 hours, and all died. In Mayo Robson's personal cases 3 were operated upon within 24 hours and recovered, 3 after 24 hours and died. In the Ulster list 8 cases were operated upon within 12 hours with 64 per cent. of recoveries, 6 were over 12 hours with only 33 per cent. of recoveries. Earlier diagnosis is, therefore, the first hint we get for the future.

SEX.

The practical lesson we learn from the recent discussion of the subject is that gastric ulcer is a common disease of both sexes. On adding Barker's and Mitchell's lists we get 108 cases of which the sex is stated, and of this number 93 were women and 15 men; but when we come to look at the termination of the 15 cases we find that only 3 males recovered. We have not far to go for an explanation, for these cases fall into the category of cases undertaken after the lapse of 12 hours, and we see that this excessive mortality in the male sex is wholly avoidable if we take as a second hint to think just as much of gastric ulcer when called to an acute abdominal case in a man, as we would if we were called to see an anæmic girl under like conditions.

The following cases illustrate the foregoing points. Two were men and two were women; 2 were operated upon within 13 hours, and of these 1 recovered and 1 died, but it is open to doubt whether the fatal case had not perforated many hours before the time I count from. The other 2 were operated upon respectively 19 and 31 hours after perforation, and both died.

CASE I.

On November 8th, 1899, at about 5 P.M., my colleague, Dr. Lumsden, called for me to see a female patient, in consultation with him, whom he had just admitted to Mercer's Hospital, as he had diagnosed perforation of a gastric ulcer. Dr. Lumsden gave me the following history.

* Read before the Royal Academy of Medicine in Ireland.