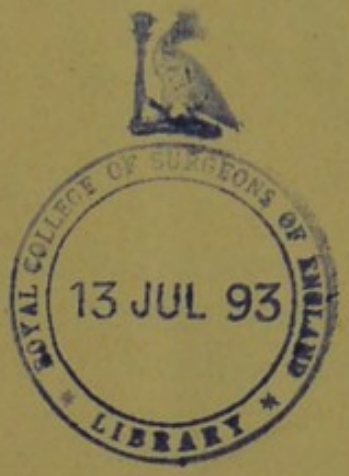
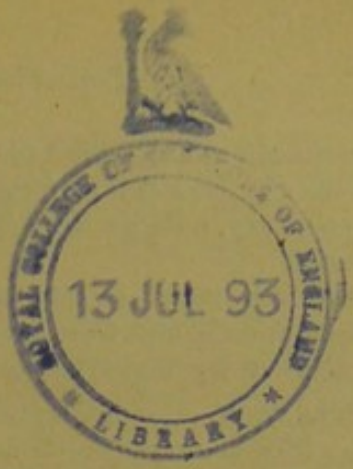
Laparotomy for apparent intestinal paralysis which caused arrest of the intestinal contents and was equivalent to intestinal obstruction / by W.W. Keen.



LAPAROTOMY FOR APPARENT INTESTINAL PARALYSIS WHICH CAUSED ARREST OF THE INTESTINAL CONTENTS AND WAS EQUIVALENT TO INTESTINAL OBSTRUCTION.—KEEN.



LAPAROTOMY FOR APPARENT INTESTINAL PARALYSIS WHICH CAUSED ARREST OF THE INTESTINAL CONTENTS AND WAS EQUIVALENT TO INTESTINAL OBSTRUCTION.

BY W. W. KEEN, M. D., PHILADELPHIA, PENN.

Professor of the Principles of Surgery and Clinical Surgery, Jefferson Medical College.

Mrs. S., æt. 45. Mother of several children. Has had a great deal of sorrow and consequent mental distress for the last few months. Was first seen by me in consultation with Dr. S. Mason McCollin, on the evening of Dec. 24th, 1890.

Some months ago Dr. McCollin removed a soft polyp from the mouth of the womb and the patient returned to him from time to time for treatment after its removal. Of late she has had a very offensive vaginal discharge, so much so that Dr. McCollin suspected possible cancer of the uterus, and it was so diagnosticated by another competent gynæcologist, who had even advised removal of the entire uterus the day before I saw her.

On Dec. 18th, 1890, the patient came to town and reached Dr. McCollin's office utterly exhausted. He put her to bed and gave her some vaginal douches to relieve the odor. She seemed somewhat dazed on the 18th and 19th; on the 20th became delirious and her strength failed to such an extent that Dr. McCollin feared she would die during the night. From then until the 24th she has been in a precarious condition. There has been much elevation of temperature and she has been continually out of her head and has had an excessively fetid breath. On the 23d and 24th she vomited a great deal, sometimes for nearly an hour at a time. She said that she had had a movement of the bowels on the 19th, but this was not confirmed. From that time until now there has been no movement whatever, nor has any flatus escaped, and yesterday (the 23d) an enema of half a gallon was entirely retained. No gurgling in the bowels has been heard. Her menstruation began to-day.

Dec. 24th, 1890. On examining the abdomen no especial tenderness was discovered excepting over the right iliac fossa and not very much there. There was also, it seemed to me, more resistance at that point. On examining the bowel I found that the rectum was absolutely empty. It was "ballooned" into a cavity certainly as large as the fist. No strictures were observed and the tube with which the half gallon enema had been injected had been inserted 18 inches into the bowel with no obstruction. On examining the uterus it was found to be movable, not enlarged, the os slightly patulous, so that the tip of my forefinger could be inserted for a scant half inch and felt the stump of the polyp. There was no cauliflower or other growth about the womb. The odor of the menstrual discharge was not offensive.

Reprint from the Kansas City Medical Index, April, 1893.

Inasmuch as she seemed to be going down hill very rapidly and as she would certainly die very shortly if nothing was done, I recommended an exploratory laparotomy on the next day, unless a large enema, with elevation of the hips, should be followed by any result.

Dec. 25th, 1890. Dr. McCollin reports that almost a gallon of fluid was injected last night and the hips were elevated. The entire enema was retained, She was even more delirious last night than before.

OPERATION.—An incision was made in the median line, which was eventually extended to a little above the umbilicus. As it was found that there was a marked tendency towards an umbilical hernia the entire umbilicus was dissected out and removed. There were no adhesions, no fixation of the pelvic viscera, no intussusception (which to my mind in spite of her age was the most likely prior diagnosis) and no band or other obstruction to be found. The large intestine, as had been determined by percussion before the operation, was enormously distended and the small intestine in its lower half was contracted and empty, but in its upper half evidently contained fæces. The large bowel had a rather sharp V-shaped attachment to the spleen, but not enough to produce any obstruction. At two points in the ascending colon and the sigmoid flexure an incision over half an inch long was made in the large bowel and an enormous quantity of gas let out. The intestinal incisions were then closed with Cushing's right-angled continuous suture. The large bowel was followed from the rectum to the cæcum and the small bowel rapidly gone over from the cæcum to the duodenum, but no obstruction was found. The gall-bladder was distended with bile. Both it and the liver were healthy. The abdomen was then closed as speedily as possible. A glass drainage tube was inserted, going down into Douglas' cul-de-sac. Before the patient had been removed from the table the bowels were freely moved. During the operation she suffered deeply from shock. This was admirably relieved by hyperdermatics of strychnine. The urine had been examined repeatedly and found normal, but urine drawn a few minutes before the operation and examined afterwards, showed moderate albuminuria.

Dec. 26th, 1890. She passed a very bad night, being almost wildly delirious at times, so that she had to be restrained by physical force. She has made no complaint of pain, but if the abdomen is pressed upon she winces as though hurt. Just after the operation the drainage tube was cleaned by suction every 15 or 20 minutes, blood-stained serum being removed. The intervals were rather rapidly lengthened, until this morning after five hours only one drachm had accumulated. This fluid is entirely sweet. Her temperature is only a little above 100, tongue coated, breath still very foul. Her pulse has increased in frequency to 124 and has lost in force. Since the operation absolutely nothing has been given her except a little ice and champagne, and a little brandy and water. In view of the paralysis which had existed, at least in the large bowel and possibly in the lower part of the small bowel, I deemed it best for her simply to be stimulated moderately and have no food whatever for at least 24 hours. At 11 A. M. to-day a distinct gurgling was heard in the intestine and has continued at intervals since. A rectal tube was inserted once in four hours and has given exit to some gas, and she has also passed some spontaneously, the first in seven days.

The drainage tube was removed after 28 hours, there being scarcely any further accumulation of fluid in it. Her general condition was very bad and it looked as if she could live only a few hours. The wound itself looked perfectly well. During the afternoon she rapidly failed, and for a short time there was no appreciable pulse even at the wrist, while her respirations were shallow, quick and irregular. Once or twice it seemed that the respirations were permanently suspended. There again *strychnine* hypodermatically administered was of the greatest value.

Dec. 29th, 1890. On the 27th, (2d day) to my surprise, she was somewhat better, and we began cautiously to feed her a little milk and liquid peptonoids only. Flatus occasionally escaped spontaneously, and almost always whenever the tube was inserted, and

not uncommonly small quantities of fæcal matter also were passed by the tube. On the 28th (3d day) she was about the same physically, but her mental condition had improved. The wound on examination appeared to be in perfectly good condition. Two or three doses of sulphonal in 10 grain powders were enough to reduce and almost to control her restlessness.

January 1, 1891. By the 30th, (the 5th day,) her temperature had touched the normal, with a slight rise at night. On the 31st, (the 6th day) as her bowels had not been freely opened we decided to give her a dose of 30 gr. of Epsom salt every 2 hours, very cautiously to empty the bowels. Soon after she had the second dose, and not probably as a result of it but accidentally, an attack of diarrhœa began and within 24 hours she had 30 or 40 liquid movements, a number of them of considerable amount. The odor, especially of the earlier ones was excessively fetid. With this diarrhœa her mind seemed to clear up considerably, so that she herself observed the odor of the passages; but she developed a great disinclination to take either food or medicine due chiefly it seemed to her mental condition. The wound had healed throughout by first intention, and I removed to-day all the superficial and half the deep sutures. Her temperature was normal

January 3, 1891. (9th day.) The remaining sutures were removed to-day. Her mental condition is very much improved. The bowels are a great deal better and have lost their excessively offensive odor, as a result probably of the administration first of salol and then of naphthaline, especially the latter. Two 30 gr. doses of bismuth following several drachm doses of sulphate of magnesia seem to have arrested the diarrhœa completely.

From this time on her recovery was progressive but slow. Her mental condition especially was clouded for a considerable time, but eventually she recovered entirely.

June 12, 1891 (6 months.) She saw me to-day and was in better health than she has been for years past. Her mental condition is entirely restored.

Remarks :—There are several interesting features in this case which demand attention. First the pathological condition. From the middle of the small bowel down to the ilio-cæcal valve the lumen of the bowel was diminished to less than one-half the calibre of the upper portion, whereas the large bowel was dilated very greatly with gas. Neither the constricted half of the small bowel nor the dilated large bowel contained any fæcal matter, only a few drops exuding through the two incisions made in the large bowel, and so far as could be judged by stripping with the finger the contracted small bowel was equally empty. It did not, however, seem to be in a condition of spasm as far as could be judged; there was no rigidity or special hardness. There was no occlusion at the point of sudden narrowing, nor any other extensive constriction, but certain it was that for a week and possibly longer no peristaltic gurgling had been heard, nor, from the absence of any fæcal matter, had any peristalsis probably existed. My opinion prior to operation was that most likely, in spite of the patient's age, there was invagination at the ilio-cæcal valve or possibly appendicitis. Her mental condition was such, however, that all the subjective signs were doubtful and even the objective signs such as tenderness, etc., were very difficult to establish. I have never before seen apparent arrest by so sudden a contraction of the small bowel and the dilatation of the large bowel without assignable cause.

Whether there was any sapræmia as a result of the continued presence

of fcæal matter in the bowel and absorption of the ptomaïnes of decomposition will always be doubtful, but it seems reasonable to suppose that this was the cause of the mental and to a large extent of the physical condition. The evidence of this rests on the horribly fetid discharges which took place soon after the operation, with the simultaneous clearing of a very foul tongue, the disappearance of a very fetid breath, and the betterment of her mental condition.

Secondly: The laparotomy was entirely exploratory and the case shows the wisdom of it. The laparotomy was done to make a diagnosis as well as to institute such treatment as the conditions found would warrant. The case shows also the wisdom of small incisions in the bowel, incisions which can be perfectly well made and closed by any of the ordinary intestinal sutures, rather than making punctures and leaving them to heal without sutures. The distended large bowel was relieved of its tension and resumed its function, whether by the stimulus of the handling and washing out of the belly-cavity with hot water or the re-establishment of the peristalsis of the small intestines I cannot say. Probably each one of these factors had some influence in bringing about these results.

In closing the intestinal incision I used Cushing's continuous right-angled suture as shown by him in the Boston City Hospital Reports for 1889. I think it very easy of application and very speedy and satisfactory. I did not use the rather complicated method he described of securing the two ends. The first end I simply tied in an ordinary knot and the last end I slipped through its own loop two or three times and cut it off short.