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AN OPERATION TO RELIEVE OBSTRUCTION OF THE
BOWELS BY A BAND. DEATH.

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SURGICAL interference to relieve intestinal stoppage, though often discussed, is rare. The history of the following case, though unfavorable in its result, contains some facts which may be of use in similar cases. To add to the experience of so unusual an operation, I conceive to be the duty of all.

J. Y., a little boy, seven years of age, was suddenly attacked, according to the parent's account. The symptoms were pain in the abdomen and obstinate constipation; followed by vomiting, tympanites and tenderness. A physician treated him at first for the constipation, with castor oil, large enemata, and other cathartics. The medicines were vomited; and nothing came from the rectum but the enemata.

On the fourth day of the sickness, he was seen by Dr. J. G. Blake. The symptoms were the same. Dr. Blake gave no cathartics, but a warm enema of two quarts, and hot fomentations to the abdomen. The following day he asked me to see him, with a view to using puncture to relieve the tympanites. The child was sitting up straining at stool, but nothing came from the rectum but a little clear serum. The belly was enormously distended; and a huge coil of intestine, supposed to be the colon, revealed itself in outline across the abdomen. There was general tenderness, but not very great. Not much retching. No tumor or hard spot was felt in the abdomen. The child's general condition was not so feeble as might have been expected.

Dec. 30, 1871.—He was taken to the hospital, and repeated punctures made into the distended intestine, with the aspirator. A good deal of foul gas came away. The abdomen relaxed; the child appeared relieved, and was able to retain nourishment. He was fed upon small quantities of milk and lime water, a little sherry, and opium. Hop-fomentations to abdomen.

Dec. 31.—He rested better last night, and retained his food. But to-day the abdomen has filled up again, and the distress from

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the distention has returned. The punctures were repeated with as good result as before. Treatment was continued the same.

Jan. 1, 1872.—A little worse; no relief to the bowels. Is kept a little under the influence of opium; retains his food. The question of an operation was mooted, but I was reluctant to undertake it.

Jan. 2.—The case had now reached the *eighth* day, since the attack. The child was obviously failing. Distention and distress great. No passages downwards of fluids, or flatus. It was clear that the obstruction was not to be relieved by ordinary measures. There was, however, as yet, none of the collapse which indicates mortification; nor were the symptoms of abdominal tenderness very acute. An unfavorable prognosis was given, and the parents were very urgent for an operation. Seconded as they were by medical advice, I consented to try this last expedient, without, however, holding out much hope to them.

Operation.—The child was etherized; and the abdomen opened by a vertical incision. The intestines were so distended that they concealed the cavity of the abdomen, and prevented any search for the stricture, through this incision. A cross incision was therefore made, and the abdomen explored with the hand. There was present a moderate degree of peritonitis. No effusion in the abdomen, either serous or fæcal. The puncture marks in the intestine were seen, closed up, without extravasation, or external redness. The obstruction was found in the ileum, just above the cœcum. The ileum was much distended above the point, but empty and collapsed below, and so was the large intestine. There was no invagination, or intussusception. The ileum was twisted and held by a band of adhesion which looked old. This was easily severed, and the bowel untwisted. Air immediately passed through, and there followed, at once, an enormous liquid and gaseous discharge *per anum*.

The abdomen was now closed as rapidly as possible, warmth applied and stimulants given. The abdomen was closed in the more readily, since the bowels sank down after the discharge.

The child did not rally, but died, in a state of collapse, after three hours.

The instructive points in this case are:—

1st. That when we open a tympanitic abdomen, we had better puncture the intestines with the aspirator, or we shall be obliged to make a crucial incision. There might, however, be more difficulty in promptly finding the obstruction, if we had not the distended bowel to guide us to the stricture.

2d. Punctures with the aspirator do not cause extravasation, or inflammation; neither do they afford permanent relief in tympanites.

3d. Immediate resumption of the peristaltic movement of the bowels, as soon as the stricture was relieved.

4th. The operation was done too late. Would it not be a hope-

less proceeding at any rate? Has it ever succeeded? *Mr. Hutchinson*, of London, has recently opened the abdomen of a child, where the symptoms of intussusception were very marked, on the *tenth* day. He drew out the invaginated bowel, and the child recovered.

"For intussusception and strictures of the small intestine," says *Mr. Bryant*, in his "Practice of Surgery," "there is little to be said in favor of operative interference. The *cause* of the obstruction, in such cases, is within the intestines themselves, and not outside. But for *internal strangulations*, in which the bowel is obstructed by some solitary band, omental, mesenteric, or otherwise, the same cannot be said; for, granting that a diagnosis can be made, and its almost certainly fatal termination be accepted, the question of operation becomes a simple one—for the cause is without the bowel and remediable. Ought the operation to be attempted? or is the patient to be left to die unrelieved? I have no hesitation in giving it as my opinion, that an operation is justifiable, under these circumstances; but only when the diagnosis is fairly clear."

Dr. Brinton, in 600 cases of intestinal obstruction, found that 43 per cent. were from intussusception; 31 per cent. from bands; 17 from stricture, and 8 from torsion. In most of these, surgical relief could have been given.

The same authority estimates that obstructions of the intestines cause about 1 in 280 deaths from all diseases. In obstructions due to bands, the small intestine is the seat of the trouble in 94 per cent. of the cases. But in obstruction, due to organic strictures or tumors, the large intestine is the seat in 87 per cent. of the cases. In intussusceptions, the ileac, or ileo-cæcal give 84 per cent. of all. This is an affection more peculiarly of infancy and childhood. It is well known, also, that invaginations are very frequently found after death in young subjects, without having given rise to fatal symptoms. They are probably temporary, and become disentangled. Of 300 children examined by *Louis*, the greater number had two or three *volvuli*, without inflammation, and there was no history of symptoms during life. *Rokitansky* considers them produced in the death-struggle, or the *rigor mortis*.

The question of differential diagnosis between bands and invagination is important in reference to the trial of operative interference. The difference is often clearly marked, but not always. *Dr. Fagge** gives the following symptoms of *band*:—"The sudden and definite onset of the illness; the occurrence of collapse at its beginning; an early age; the severity of the pain, generally referred to the umbilicus; the absence of precursory symptoms; the absence of tumor, hæmorrhage, or dysenteric symptoms, such as are seen in intussusception; and the absence of the intensity and rapidity of the acute form of *volvulus*."

Mr. Gay† has collected 148 cases of strangulation by band. In

* Guy's Hospital Reports, 1868.

† Transactions of the Medical Society of London. 1861-2.

band, vomiting is constant; in intussusception, it often ceases. In band, constipation is the rule; in invagination, diarrhoea, bloody and mucous stools. In band, abdominal distention is an early symptom; in intussusception, it may never exist. In the latter, a distinct tumor may be felt. In both, opium should be freely given.

In intussusception, the proper treatment appears to be *inflation*, which has sometimes succeeded; and an operation may be a final resort.

In band, we can have no resource but an operation. It is an internal strangulation like a hernia, hopeless unless the stricture can be removed.

Abdominal surgery has been so far advanced in comparative safety by the experience of ovariologists, that *Dr. Otis*, in the exhaustive History of the Surgery of our late War, ventures to predict, that in gun-shot wounds of the abdomen, with pressing symptoms, the practice of abdominal section, search for the ball and prevention of extravasation may eventually become common, and more successful than the fatal inactivity now the rule. In like manner may we not look forward to an increasing percentage of recoveries in operations to relieve intestinal obstructions—a ratio of success comparative to our early and accurate diagnosis?

In a case of such hopeless nature, it is painful to any physician of sensibility to stand by and do nothing, when an examination, *post-mortem*, reveals the cause of death to be purely *mechanical*, and capable of relief from a touch of the finger, could it have been rightly applied.

TREATMENT OF CONGENITAL ATELECTASIS PULMONUM BY STEAM.—The author considers the greatest danger for the life of the new-born infant to be the lowering of the temperature of the body, caused by incomplete decarbonization of the blood and by bronchial catarrh. This danger, according to the author, can be removed by the application of external warmth by making the temperature of the air inspired sufficiently high. The air, however, must be moist, which can be most easily effected by placing the child in a steam bath, a tent being made with blankets, and steam developed underneath it by means of a vessel containing boiling water which must be often renewed; or, by means of a boiling apparatus so arranged as to keep the temperature 26–27° C.; at the same time, care must be taken that there be always sufficient circulation of air therein. The temperature of the bath should, for the first days, not be allowed to go below 25° C., and at no time go above 30°. As to length of time to keep the child in the bath, this depends upon the severity of the case; sometimes as many as 8–14 days are required. The temperature is to be gradually diminished, and the child to become accustomed to the temperature of the room which should at no time be a very low one. The author claims to have seen very good results from this treatment.—*Allgem. Med. Central Zeitung*.