

## TRANSACTIONS OF THE NEW YORK SURGICAL SOCIETY.

*Stated Meeting, April 26, 1893.*

ARPAD G. GERSTER, M.D., President, in the Chair.

---

### ANCHYLOSIS OF THE TEMPORO-MAXILLARY ARTICULATION.

DR. A. J. MCCOSH presented a woman, twenty-six years of age, with the following history:

Four and a half years ago the patient was attacked by fever and lumbar pain, followed by a series of large abscesses in each lumbar region. One abscess followed another, and repeated incisions and scrapings were done. The patient was confined to bed for eighteen months, when all sinuses healed, and for the last year her general health has been good. During the period of the abscess formation she complained of great pain in front of her ears, and soreness and stiffness on manipulation of the lower jaw. Her trouble at the time was thought to be due to Potts' disease of the spine, but possibly it was due to sepsis following a four-months' miscarriage.

The pain in the temporo-maxillary articulation persisted for some months, and the stiffness increased until, at the end of a year from the commencement of these symptoms, the teeth of the lower jaw were firmly fixed upon those of the upper jaw, and no movements could be made. When seen by Dr. McCosh, three months ago, the teeth were firmly fastened against each other, the slightest separation being impossible. For a year the patient had subsisted on soft or fluid food, introduced into the mouth through a gap caused by the extraction of two incisor teeth.

In January, 1893, the patient was given an anæsthetic, and an attempt made to separate the jaws. With the aid of Koenig's buccal dilator it was found impossible to wedge apart the teeth sufficiently even to allow the finger nail to be introduced between them. No bands could be felt in the mouth, and no constrictions in any of the soft parts. The ankylosis was evidently in the joint.

Accordingly, the neck of the condyloid process of the inferior maxilla being exposed by a transverse incision along the lower border of the zygoma from a point anterior to the base of the tragus, and extending toward the median line for about one and one-quarter inches, a second incision, at right angles to this, was made downward from its middle point. This latter incision extended through the skin only, so as to avoid injury to branches of the facial nerve. The transverse incision was then deepened until the condyloid process of the inferior maxilla, just below its head, was exposed. It was then found that there was complete bony ankylosis in the temporo-maxillary articulation and between the head of the bone and the lower surface of the zygoma. There was considerable new bony formation about the joint, and it was impossible to estimate where the neck of the condyle joined the head. The condyle, neck and inner surface of the zygoma seemed to be welded together into a solid bony mass. The condyloid process was divided with a chisel just below the condyle, and again at a point two-thirds of an inch below, and the intervening portion of bone, a little over one-half inch in length, removed. The coronoid process was then found to be adherent to the zygoma. This was chiseled through. The same procedure was done on the other side, and the teeth, with the aid of a dilator, could now be widely separated.

The hæmorrhage was free, but was controlled by pressure. The wounds were sutured without drainage. Primary union resulted. On the sixth day the patient could chew solid food. She has been faithful in preventing any recontraction, and she can now, three and a half months after the operation, open her mouth widely. There is no pain or stiffness, and no tendency to recontraction. There has been no injury to the facial nerve or to Steno's duct, and the scars are so slight that really no disfigurement has resulted.

DR. MCBURNEY thought there were a great many cases of ankylosis of the lower jaw which go unassisted when really they could be enormously benefited by operation.

The management of the case must depend to a great extent upon the length of time the ankylosis has existed. Not, of course, upon the amount of ankylosis, for that may become complete in a very short time, but upon the amount of muscular atrophy or contraction which may vary according to the length of time the ankylosis has existed. He judged that in Dr. McCosh's case the temporal muscles still remained functioning. That fact would contribute very much to the success of the operation.

He recently had a case illustrating a different stage of ankylosis, the ankylosis having been present twelve to fourteen years, due to disease, probably tubercular, which had occurred in childhood. Owing to so early arrest of development of the lower jaw and its muscles, the patient's chin looked like that of an Aztec. He had operated three weeks previously, intending at first to do the operation practiced in this case by Dr. McCosh, but the atrophy of the temporal muscles was such that it was impossible to get even a finger nail between the teeth. It was necessary to cut away the coronoid process on both sides, together with the head and neck of the lower jaw, after which the result obtained was very satisfactory. The mouth can now be opened an inch and a half.

The operation can be performed by making a vertical instead of a horizontal incision, and the resulting scar is much less.

#### FIBROMA OF THE RECTUM.

Dr. McCOSH presented a man, thirty-four years of age, with the following history: For some years previous to last summer the patient had experienced discomfort in his rectum, and a gradually increasing difficulty in evacuation of his bowels. He had noticed that latterly the only faecal material which he had been able to pass was thin and ribbon-like.

He came to the Presbyterian Hospital last July, stating that he had not had a proper movement of the bowels for many weeks, and that nothing but gas and a little liquid faeces had passed for twelve or fourteen days.

On examination of the rectum a hard tumor was found in its posterior wall, extending up from just above the anus to the hollow of the sacrum. At a point three inches above the anus the calibre of the rectum was so blocked as to allow merely the end of the little finger to pass. The mucous membrane was smooth, but seemed adherent to the tumor, which was smooth and regular on its surface, and very hard. It was thought probable that the growth was malignant in character.

The rectum and ascending colon were found filled up with large, hard faecal masses which could not pass down. After endeavors for two or three days to soften these masses and cause their expulsion by laxatives and enemas, it was found impossible to empty the bowel, and, therefore, a left inguinal colotomy was done, and in the course of a week or ten days the rectum and colon were thoroughly

emptied by means of injections and irrigation, and breaking up of the masses under ether.

On July 10 the radical operation was done. An incision was made from the posterior border of the anus up to the lower end of the sacrum, the coccyx being removed. A glistening, hard, smooth tumor, adherent to the posterior surface of the rectum, was quickly exposed. It extended upward to the middle of the sacrum and down to within an inch of the anus. It was easily shelled out on its posterior and lateral surfaces, but anteriorly it was found intimately connected with the mucous membrane of the lower three inches of the rectum, and in dissecting it off the rectum was opened for a length of two and a half inches. The tumor was the size and very much the shape of a large cocoanut, and was declared by Dr. Thacher to be a fibro-myoma, springing from the muscular coat of the rectum.

The rent in the posterior rectal wall was sutured, and the sphincter ani muscle cut through and left unsutured. The skin wound was closed. It was the intention to suture the cut sphincter at a later period. Six weeks later the colotomy wound was closed.

#### THE TREATMENT OF GENERAL SEPTIC PERITONITIS DUE TO APPENDICITIS.

Dr. CHARLES MCBURNEY presented a case in which recovery from a general septic peritonitis had been secured by abdominal incision, copious irrigation of the peritoneal cavity, and subsequent drainage.

Dr. FRED. KAMMERER said he thought Dr. McBurney had been very fortunate with his case of general septic peritonitis following appendicitis. He had operated five times for general peritonitis and had not been able to ultimately save any of his cases, although one lived for five weeks after the operation. It is true he did not follow out the plan practiced by Dr. McBurney of washing out the general peritoneal cavity. Besides, at least two of his were distinctly cases in which large abscesses had formed about the perforated appendix, which had ruptured into the general peritoneal cavity, flooding it with a large amount of septic material. All were operated on when almost in a moribund state. It struck him as a noteworthy fact that Dr. McBurney's patient showed such slight symptoms of general sepsis when the abdomen was so full of foul fluid. The case is once more a reminder of the vast difference, pathological and clinical, that

exists between different cases of peritonitis, and of the difficulty in drawing general conclusions from a single case, to which Dr. McBurney has referred. On the whole, he thinks that the adhesive form of peritonitis is not adapted for treatment by washing out. Where there are no adhesions, and where there is, therefore, distinctly a general peritonitis, it may do some good, although it is questionable whether simple incision and drainage would not have been equally efficacious. He had mentioned such a case, in which he succeeded in keeping the patient alive for five weeks. It was distinctly a general septic peritonitis, with scarcely any adhesions and with symptoms of systemic intoxication. He simply opened the abdomen and drained without washing it. The temperature, which before the operation was 104°, sank immediately to 98° F., and remained low for two weeks, but then the trouble began. Adhesions formed among some of the intestines, leaving, no doubt, other parts in which pyogenic germs were still active, and, as it were, splitting up between them the general peritonitis into several isolated foci of infection. He operated five times upon the patient, opening abscesses in different parts of the abdomen, but after five weeks she succumbed to sepsis arising from an abscess which he had not been able to find. This shows, on the other hand, what a difficult thing it is to drain the general peritoneal cavity, even in a case like that of Dr. McBurney's, in which there were no adhesions at first.

Dr. CHAS. K. BRIDGES said he considered that Dr. McBurney's case will serve to make clear some of the unwritten pathology of appendicitis, which is as yet in its infancy. His first case represents in a pronounced manner one of those which have been spoken of as fulminating and rapidly fatal, and in which the termination in recovery could only be attributed to the prompt institution of radical measures and the perfection of the technique. His second illustrated another phase of the disease, not accompanied by the same profound intoxication, and relieved at once by prompt incision.

He had thought that the condition of general sepsis in some of these cases was modified by the condition of the peritonæum; in some where the surface of the serosa was covered by lymph it appeared to have lost its function as an absorbing surface, and the general toxic symptoms were only moderate, while in others, where this condition did not exist, but where there was a quantity of more or less offensive pus, the general condition was extremely bad.

During the last six months he had operated upon fifteen cases of

appendicitis in the Presbyterian Hospital without a fatal result. In four of these cases on opening the peritonæum there was a small discharge of sero-purulent fluid that was not walled in by any conservative process, and that apparently had no direct communication with the small pus foci in the immediate vicinity of the more or less disorganized appendix, and which were shut off from the general cavity. These free collections were small in amount and limited to the loin. In operating on such cases he thought there was danger, in flushing the general cavity, of converting a local into a general infection of the serosa. Thorough sponging and iodoform tamponade have carried his cases to a successful issue. Of course, where there is a diffuse general suppurative peritonitis, the use of thorough flushing, such as was used in Dr. McBurney's first case, is the only measure to be relied on. He regards drainage by gauze as more efficient than that by tubes, and where it has been found necessary to make two long lateral incisions he has adopted the plan of passing a wide tampon through both.

Dr. GERSTER said that notwithstanding the great amount of material which has been accumulated on appendicitis, and the numerous theories advanced regarding the many features of the disease, he did not believe the essential part of the pathology is yet known. Not that he opposes the view that the process usually arises from the appendix. To illustrate his meaning, we may open the abdomen in two cases and find apparently the same condition in each, yet the course of events be very different. We may find a diseased and perforated appendix surrounded by pus which is not limited, so that there is really free communication between the focus and the peritoneal cavity. There is more or less general peritonitis, yet one case will recover and the other die, although both are treated in the same way, and both manifest before the operation the same amount of septic infection. The gross appearances do not give us sufficient explanation of the different courses of the malady under identical conditions.

Referring to another complex of symptoms, he said that he had opened the peritoneal cavity, within which a partially gangrenous appendix was located, surrounded by pus which was completely shut off from the rest of the peritoneal cavity by good adhesions. The patient exhibited intense septic symptoms, somnolence, a deep depression of the nervous system, vomiting, but especially that somnolence which he found very ominous in appendicitis. The appendix was completely removed, the cavity cleansed thoroughly and drained;

the rest of the peritoneal cavity was found to be free; yet after this very thorough operation the patient's condition did not improve at all, the stupor and high temperature, etc., continued, and death took place from the continuously increasing very acute septicæmia. This case occurred last year. He had had an identical case three weeks before, and it is somewhat remarkable that both of them came from the same colleague, who also noticed their curious parallelism. Yet in this second case, while finding the same conditions as in the first, and resorting to the same treatment, the result was very different, for the patient's condition improved, and continued to improve, until recovery was beyond reasonable doubt.

There are other cases of appendicitis in which the communication between the effusion in the vicinity of the appendix and the peritoneal cavity is a free one; where we find what is actually pus, and what anybody and everybody would declare to be pus, filling the pelvis, quantities of it escaping as soon as the peritonæum is incised. Yet, notwithstanding this serious state of things, as soon as we dip out this turbid matter and introduce gauze drainage the patient improves and finally recovers. Again, cases apparently identical with this, treated in the same manner, still go on from bad to worse, and end fatally. A post-mortem examination has been made in a number of these cases and disseminated abscesses were found in the peritoneal cavity which had not existed at the time of the operation, for the entire cavity had been searched carefully, and they could not have been missed had they existed. Such abscess may form after operations, and we have no control over them. Where infection of the peritonæum has occurred they will form. Not that all such collections of exudate must lead to a fatal issue. Where its character is mild it may be absorbed, and those who oppose an operation for appendicitis have probably met with cases of that kind which have recovered. Undoubtedly, however, they would have recovered more promptly with an operation than without. There must be a regular gradation of cases from the milder to the severer forms, and while some may recover without an operation, there are others which can be saved only by the knife, while still others die despite of all that can be done. When the entire peritoneal sac once becomes thoroughly infected no amount of flushing can cleanse it, and the patient will surely die. Dr. Gerster had seen that repeatedly, although he had been anxious to demonstrate that the cases reported, notably by Dr. Abbe, of general purulent peritonitis cured by thorough washing

and drainage of the peritoneal cavity, could be duplicated, but had failed. He had tried the method honestly and thoroughly. The cases were bad ones, of course—cases of multiple abscesses with stinking pus. He turned out the pus collections, broke down the adhesions, washed out the abdomen, drained in both loins, both inguinal regions and through a median incision, but the patients died exactly as if they had not been operated upon.

One more fact should be mentioned while we are discussing this very important subject, one which needs a great deal more elucidation even than Dr. McBurney's wide experience has been able to throw upon it. Although a warm advocate of an early operation in appendicitis, yet he believes there are cases in which a stage has been reached where recovery can only take place by letting them alone. He had under observation two such cases in the last two months. One was in a boy of seventeen years who had had appendicitis nine days, and at that time indubitable peritonitis. His hue was that of saffron, his belly tight as a drum, there was vomiting of a greenish material, apparently due to paralysis of the intestine; the percussion sound was dull in both loins. By bimanual examination, one finger in the rectum, a fluctuating mass in the pelvis could be palpated. The pulse could hardly be counted; the body was covered with cold perspiration. In short, the boy was in such condition that he did not dare subject him even to the slight shock of etherization and opening the large abscess. The fact that no operation was performed through fear he might die during the procedure accounts for his being well to-day. Intensely fetid pus was soon evacuated through the rectum, perforation having taken place without the shock which an operation would have imposed, and the patient's condition began immediately to improve, and he recovered. The other case occurred in a man; the same conditions existed, and operation was not done through fear that the slightest shock might cause his death. Perforation took place into the rectum, a large quantity of pus was evacuated, after which the pulse, which had been thready, became fuller and slower, the temperature fell, the tympanites disappeared, and the man's general condition improved to a great extent. Five days later the patient could not pass his water and a rounded tumor was felt in the region of the bladder, the catheter bringing away only a small amount of urine. It then became apparent, on examination per rectum, that the tumor was a reaccumulation of pus, the spontaneous opening into the rectum having become occluded. An incision was therefore



made in the suprapubic region and an enormous abscess drained, and the patient recovered. Had the patient been subjected to anæsthesia and the shock of an operation when first seen he would have died in consequence of the procedure. In other words, both patients recovered because they were not operated upon.

Dr. McBURNEY said with regard to the more intense septic condition of some of these patients as compared with others, he thought we should take into consideration the difference of susceptibility to sepsis by different persons. This he regards as a very important element in the cases. The pathological condition being the same in two patients, one will get well under operative treatment such as described, while the other will go on and die, even though his condition at the time of the operation seems somewhat better. We see the same thing in other diseases. For instance, some surgeons are liable to excessive poisoning from small points of infection on the fingers, while others seem entirely immune. He is strongly inclined to attribute considerable value to the difference of susceptibility to sepsis in cases of appendicitis. In one case the peritonæum may be full of a very nasty material and yet the patient be not wholly septic; in another case, the peritonæum being full of the same nasty material, the patient will be wholly septic, and between the two we have a vast number of grades. He has seen patients recover whose conditions were quite as bad as that pictured by the President, while on the other hand patients die of active appendicitis in whom the appendix had not even been perforated. The sepsis in one of these cases was in the mucous membrane of the appendix, but the patient had peritonitis, every portion of the peritoneal cavity being highly injected, although there was no effusion. In the case now in mind the appendix was removed, everything possible was done, but the patient, although he lived a week, showed no signs of improvement and died of sepsis. Such a case shows excessive susceptibility.

Therefore he would not hold up such cases of recovery as he had spoken of as illustrating in any sense the value of that particular method of treatment, as applied to cases presenting that particular pathological condition. He was fortunate in having two cases where the sepsis was down in the cavity and had not very thoroughly entered the vessels. It should warn one not to be too confident of methods. He will have cases which will defeat his methods, whatever they may be, and there is an explanation beyond the mere gross pathological condition.

He wished to refer to the question of drainage brought up by Dr. Briddon, for it is an important one. The Doctor said he did not use tubes, but always gauze. There is a rule which covers the question of method of draining to a certain extent. He very seldom uses tubes where he can wipe out or wash out, cleaning out the cavity which can afterward be packed with gauze and where the presumption is that the fluid effused will not be greater than the gauze can absorb in its meshes and hold until it is changed. Where, however, a large quantity of fluid has been thrown into the peritoneal cavity, and a very considerable quantity of it does not come out, it will find its way into the pelvis in such quantities that gauze will not be sufficient to absorb all of it. It is not the fluid produced by disease or a moderate effusion which slowly accumulates, but a considerable quantity which the surgeon himself has put in. In such cases he would introduce a double drainage tube, and remove it as soon as that extra quantity of fluid has been got rid of.

Dr. BRIDDON hoped that the general profession would not infer from Dr. Gerster's cases that they would not have been better off had the surgeon been called earlier and performed an operation before rectal perforation was about ready to take place. Although these two patients recovered, it was by no means certain that intestinal obstructions or other trouble might not result from a condition which had been allowed to go on until they had almost reached a moribund state, and were only saved by the abscess breaking into the gut. Although he had been for many years on the fence, he had now come to regard every case of appendicitis as calling for an operation.

Dr. GERSTER said he did not sanction at all waiting eleven or twelve days when there was an effusion which could easily be diagnosed. The only point was that certain cases were seen by the surgeon for the first time, when to operate would almost surely end in the patient's death, and in such cases he opposed interference. In some, like the two mentioned, perforation might take place spontaneously in time to save life.