

ing the previous year. The left shoulder was low, the right scapulae markedly projecting, and the right hip prominent. The pelvis was level. Measurement showed deviation of the spinous process of one and one-half inches to the right at the level of the eighth dorsal vertebra, and half an inch to the left at the second lumbar, and this was accompanied by a rotation of twelve degrees in the mid-dorsal region. Exercises for forcible correction, both with apparatus and by gymnastics, were practised daily, and a retention and corrective corset, made from a cast taken in the corrected attitude, was worn continually.

In one year from the time treatment was begun the deviation in the dorsal region was reduced to three-eighths of an inch in the recumbent posture, and one inch in the erect. The measurements in the lumbar region were the same, but the shoulders were carried evenly, and the hip showed less prominence.

CASE III. Girl of four years, in whom the deformity was noticed to develop rapidly after diphtheria. The spine showed a deviation of three-eighths of an inch between the eighth and twelfth dorsal vertebrae, with a decided rotation of the thorax. The spine was flexible, but the deformity did not entirely disappear on lying down. On account of the age of the patient and flexibility of the spine, gymnastics alone were given, and a retention cast worn.

At the end of the first year, the back was straight, but there was a tendency to postural deformity; therefore the retention apparatus was worn, and light gymnastics faithfully carried out at home. The patient reported the next summer, and showed a perfect symmetrical back.

CASE IV. Girl of twelve years. The deformity in this case was known to have developed rapidly after one of the exanthemata, and showed a sharp curve of deviation, with an unusual degree of rotation in a small section. The left shoulder was low and the right hip prominent. The pelvis was level. The condition is shown in Fig. VI. The treatment consisted of daily exercise in apparatus, continued with forcible exercises, until the spine had become flexible, when the permanent plaster jackets were applied in the corrected attitude. The case is still under treatment; but Fig. VII shows the condition after four months of treatment.

CASE V. Girl of thirteen years. In this case the health had not been good for some time, and owing to this and other circumstances the preliminary work for increasing the flexibility was not attempted, but permanent plaster jackets were applied at intervals of four to five weeks, in each the attempt being made to carry the correction a little farther. The rotation, as well as the lateral deviation, in this case was extreme, as shown by the illustration, Fig. VIII. The jackets were well borne, and the health improved; so much that she was able to attend school regularly, which had not been possible before for some time. The case is still under treatment, but the condition after six months of treatment is shown in Fig. IX.

THE following is taken from the "Query" column of a daily paper:

L. C. Query.—Will you please inform me of the disease that Gen. Phil Sheridan died of and particulars of the same?

Answer.—The immediate cause of the death of General Sheridan was heart failure. The remote cause was disease of the mitral and aortic valves. The complications which occurred during his sickness were nervous exhaustion, pulmonary misarctions, pneumonia, pulmonary fever, anasarca and hæmorrhages.

Clinical Department.

INGUINAL COLOTOMY FOR MALIGNANT ADENOMA OF RECTUM, WITH AUTOPSY.

BY JOHN C. MUNRO, M.D.

Mr. X., first seen by me April 20, 1891, was fifty-two years old, married, and father of several healthy children. His mother had chronic diarrhoea; and one daughter has apparently inherited the same trouble from the patient. Otherwise the family history is negative. The patient gave no history of syphilis, malaria or tuberculosis. Since the age of twenty-one he had had a chronic diarrhoea, from which he had never been free for any length of time, and had always been obliged to exercise care in his diet. There was an indefinite history of "slow fever" at some time previous to the onset of the diarrhoea. In 1881 he was at Yorktown and Washington, but, so far as he remembered, he did not drink any of the native water, nor could he recollect ever having drunk water from stagnant pools. He had never lived South, but had been in England several times. Had always been an exceptionally strong, active, business man.

In September, 1890, an attack of dysentery laid him up over a month; and Dr. J. O. Tilton, of Lexington, who was attending him at that time treated him with hydrochloric acid, vegetable astringents, etc. In January, 1891, he detected a small lump in the patient's left groin, that disappeared after a dose of castor oil; and he found the prostate apparently enlarged and tender. Salol and bismuth, together with a trip to the South, stopped the diarrhoea.

Early in April a sharp attack of dysentery (eight to ten stools daily) was started by exposure to wet and cold; and at the same time he had painful and frequent micturition during the day, prostration and severe abdominal pain in lower abdomen. When I saw him he had lost over twenty pounds, was easily fatigued, and looked tired and anxious, though he had no trouble in sleeping. Once or twice he had noticed blood in the stools. No jaundice, œdema, cough or headache. Urine 1021, acid, normal color; albumen and sugar absent; urates increased, slight sediment of pus and single-nucleated cells, but no casts. Chest negative. Abdomen soft and non-resistant. Behind the pubes, from an inch or so to the right of the median line, leftwards, and thence obliquely to the left hypochondrium, was a distinct, hard, movable, slightly lobulated swelling, of undetermined shape in the pelvis but elsewhere sausage-shaped. Tender in the pelvis especially. By rectum the prostate felt moderately enlarged and sensitive, the upper border not being within reach; the rectum felt normal. The patient was markedly fatigued by the short examination.

Four days later Dr. F. C. Shattuck kindly saw him in consultation. The tumor was defined, as noted above, but no diagnosis was made beyond that of chronic dysentery. Frequent and careful feeding, bismuth in thirty-grain doses, and thymol in keratin covering was advised, as well as an abdominal supporter.

After a few days' immunity, sharp, short attacks of pain came on daily, and the patient ascribed them to the irritation of the thymol, so it was omitted, and ten grains each of the subnitrate and subcarbonate of bismuth were given four times daily. Temporary relief followed, only to be broken by some moderately severe pains caused by indiscretion in diet. Then he gained

strength and spirits, and was able to be at his business daily.

In June, after exposure to a cold easterly storm, he had the worst attack experienced so far, and lost considerable ground. However, he pulled up rapidly under rest, nursing and diet, and was nearly as well as ever when at the end of July he began to have a steady, gnawing pain, starting in the pelvic lump and radiating into the left flank. Scarcely any severe attacks occurred at this time, and the bowels were in such good condition that he could eat potatoes, peas, etc. Though he had lost thirty pounds in the last few months, only two of these had been lost since the attack in June.

As he thought that the subcarbonate benefited him more than the subnitrate, twenty grains of the former alone were given him four times daily. The tumor was apparently increased in size, hard, and in places nodulated. By rectum, a sensitive nodule, the size of a horse-chestnut could be felt to the right of the prostate, and palpated between the examining finger and the hand pressed deeply into the abdomen above the pubes. To the left, also, a mass could be obscurely felt in the same way. The inguinal glands were normal.

With severe pain, the patient stated that the tumor in the lumbar region seemed to harden and increase in size. He had found by trial that twenty or thirty minims of compound tincture of opium, in the morning would generally control pain throughout the day and so far he had lost no sleep. The stools were rarely hard enough to be formed and then were not tape like.

I did not see him again until the end of October, when he gave the following history: In the early part of September, feeling very well, he started in a private car on a trip to the Rockies. All went well for two weeks, he being able to go off on short hunting-trips and to eat quite a varied diet, when, after exposure, he had a return of pain without marked diarrhœa, and also a temporary retention from probable prostatitis. Then for four weeks he suffered intensely, and once during a sharp attack of diarrhœa he took some starch and water with a resulting constipation followed by a painful passage of hard fecal lumps. I found him much run down, suffering severely, describing his attacks as though the gut became twisted and then relieved by the passage of gas through the constriction. He had obtained most benefit from the compound tincture of opium, although he had steadily kept on with the bismuth, any cessation in its use being followed by an upset.

On November 7th, after a series of severe attacks, many coming on for the first time at night, I asked Dr. S. J. Mixer to see him in consultation, to consider the advisability of an operation. It seemed best to explore at least, so the following day at St. Margaret's Infirmary, with Dr. Mixer to assist me and Mr. A. A. Wheeler to give ether, I opened the abdomen in the left linea semilunaris. The descending colon was found to contain a row of fecal lumps of the consistency of moulder's clay and about the size of horse-chestnuts. In the pelvis, filling it except in front and on either side, where there was just room to insert the flattened fingers, was a hard, non-pitting, smooth lump. Above it and to the right was a coil of the sigmoid tied down by adhesions. It was not possible to determine whether the tumor started from the prostate or bowel. The colon was then brought forward, a spur being made in the lower third of the wound by passing

a silk suture under its mesenteric border and through the parietes; the gut was then stitched along its longitudinal striæ to the parietal peritoneum by a continuous catgut suture, leaving about two inches protruding in the wound. Iodoform and gauze dressing. Recovery from ether was good; and on the following day the gut was opened without ether, and the bowel above the spur irrigated with warm water, but without result. A 27 French catheter was left in, and the dressing re-applied.

On the fourth day he ate light solids, and the same day had a small passage from the rectum of light-colored, foul fæces containing some minute strings of mucus and blood. The upper bowel was irrigated with a solution of glycerine and soda in water and a quantity of soft, black (bismuth) fæces with a healthy odor came away. By the sixth day he ate roast beef and potatoes; and on the following day all the stitches but one were removed. No pus, no inflammation. With the use of Poland water and alkalies the urine, which had been high-colored and cloudy for a few days, cleared up.

On the eighth day the temperature, which had been normal since the operation, rose to 101.4° F. A drachm of castor oil by mouth brought it down to 100°, and at the same time caused much griping in the upper colon followed by a steady, copious discharge of fæces from the artificial anus, aided by a liberal irrigation above the spur. A troublesome cough from a bronchitis, with greenish, abundant sputum (which had started up on the seventh day) served to keep the temperature between 99° and 100° for ten days, after which it continued normal.

On the eleventh day he had a large dejection of soft, black fæces, that had evidently washed over the spur in the previous irrigations. He was now eating ordinary house diet, including many articles of food that he had not touched for months. At this time also he usually had several small dejections towards night, with moderate griping pain, which was controlled by a suppository of morphia and belladonna.

On the fourteenth day the nurse reported some small whitish lumps in the rectal discharges. After nearly recovering from the cough the patient sat up for a short time each day, although he did not gain strength as fast in the second week as he did in the first. The white lumps being reported again in the discharges, some were taken to Dr. F. B. Mallory at the Medical School, who reported them as consisting of masses of rather large, round, fatty degenerated cells.

In the third week, though he began to gain again, he complained of difficult, frequent and painful micturition, which cleared up under alkalies and digitalis. By the end of his third week, he sat up all day; the fistula was controlled by a small pad of cotton kept in place by an abdominal supporter, and he was able for the most part to pass his fæces voluntarily through the new anus. A few days later he was moved to his home, and again came under the care of Dr. Tilton until his death, May 4th.

At the time of his removal the fistula was kept open by daily passage of a No. 4 rectal bougie; there was no protrusion of the gut or mucous membrane, no excoriation, and very little leakage over the spur. The fæces passed voluntarily, with occasional help from irrigation. He was able to eat practically any food, and though considerably emaciated, was up and dressed for most of the day and free from the excruciating attacks of pain that he had suffered before operation.

On the other hand, he was losing flesh, was passing mucus and shreds from the rectum, and was liable to have a vesical upset at any time. The size of the tumor remained apparently the same, though the prostate felt larger and more sensitive to pressure.

I saw him again at Christmas, with Dr. Tilton, and learned that for two weeks after his return he had held his own, but soon exhibited vesical trouble with very frequent and painful micturition, pain in the glans or along the urethra, and without any relief after urinating. As this might be explained by an hypertrophied prostate, Dr. Tilton passed a 23 F. soft catheter, meeting considerable resistance at the prostatic region. About two drachms of clear urine were drawn off. By rectum the finger came up against the prostate or growth bulging into the rectum and nearly occluding it, all identity of the prostate being lost.

There seemed to be no question as to the malignancy of the growth; and it was advised to keep the patient as comfortable as possible by opiates, etc. After this he gradually lost ground, with intermissions of apparent gain followed by profound relapses. Before long communication between the rectum and bladder was established and the vesical suffering persisted to the end. A few days before death he exhibited convulsions and other uramic symptoms.

Autopsy seven hours after death, by Dr. Mallory, showed chronic adhesive pleurisy on left side. The pelvis was filled with a firm mass attached to the surrounding walls, and involving the bladder, rectum and sigmoid flexure. The central portion of the growth was ulcerated, and into it opened the upper part of the sigmoid flexure and the rectum. It also connected with the interior of the bladder by a fistulous opening. On section the surface of the tumor appeared gray and translucent, and, in places, gelatinous. The rectum below the growth contained several small, soft, papillary masses. Similar growths were present in the bladder near the fistulous opening. The bladder contained urine and feces.

Microscopic examination of the tumor showed a well-marked connective-tissue stroma, containing irregular spaces lined with cylindrical, epithelioid cells, which in part had undergone hyaline degeneration.

Medical Progress.

RECENT PROGRESS IN SURGERY.

BY H. L. BURRELL, M.D., AND H. W. CUSHING, M.D.

(Continued from No. 18, page 412.)

CANCER OF THE RECTUM.

BALL¹⁶ has contributed to the Royal Academy of Medicine in Ireland, the result of his experience in the treatment of this disease. He presented a table showing the results of excision in nine cases.

In one case (melanotic sarcoma), the patient remained entirely free from recurrence, and able to follow her occupation eight years after operation; in another (cylinder-celled epithelioma), the patient, a medical man, remained quite free from return six years after operation; in three cases, death followed operation, one being due to shock and two to septic peritonitis; while the remaining four lived for periods of

¹⁶ British Medical Journal, January 7, 1893, p. 16.

from one to three years. He discussed the methods of reaching the disease higher up by division of the sacrum. Two of his cases had been performed in this way, both of which were successful. He considered that these improved methods had largely increased the scope of the operation. In a large proportion of cases unsuitable for excision, obstruction never became a prominent symptom; and these cases were much better left alone. Colotomy was, however, clearly indicated where obstruction was commencing, and should be had recourse to early.

He believes that lumbar colotomy will soon cease to be a recognized surgical operation, and considers that an incision in the left linea semilunaris is the best point to secure an artificial anus. His experience was based upon thirteen cases of colotomy.

On the other hand, Kelsey, of New York, has recently given his opinion as follows:¹⁷ There is a choice between extirpation and colotomy, and the end results are not encouraging. He puts the immediate mortality at twenty per cent., and thinks that recurrence within one year is the rule. The cases where four years have passed without recurrence are very few in number. In some cases he would advocate excision, namely, those where the disease is low in the rectum, especially those beginning at the anus. These are curable, or, if not, recurrence is longest delayed. Cases in which the disease is extensive, recur rapidly, often before the wound is healed. Extirpation is a brilliant operation; but what is gained? In many cases life is ended at once, which by colotomy would have been prolonged with comparative comfort. Colotomy, especially the inguinal operation, relieves pain, the constant tenesmus and rectal discharges which are important factors in hastening the final result. It avoids intestinal obstruction. The patient can eat and sleep, gains flesh, and often thinks himself cured. He claims that colotomy and the terrors of an artificial anus, when properly managed, are not so black as usually painted. His summary is that the extirpation of the rectum has a very limited range; that the Kraske operation, although enlarging the field of operation, has not improved the results; that colotomy is almost free from risk, and in any series of a considerable number of cases will give a longer comfortable life. Extirpation is more often indicated in non-malignant than malignant stricture, but even here the advantages over colotomy are not sufficient to justify the increased risk in grave cases requiring extensive operative interference.

SURGERY OF THE GALL-BLADDER.

An excellent *résumé* by Pick¹⁸ of Czerny's publication on the present status of this branch of surgical work merits attention. Czerny bases his conclusions on eighteen cases. He considers that cases without discomfort, even if the gall-bladder can be felt distended with calculi, should not be interfered with surgically. In these cases there may be short attacks of colic with jaundice; but they are readily relieved by medicinal treatment, and are not of frequent occurrence. The surgical cases are when the symptoms are severe, the attacks frequent, and the patient is not free from pain or discomfort during the remissions. The operative cases are classed either as those without long-continued icterus or with long-continued icte-

¹⁷ New York Medical Journal, November 12, 1892.

¹⁸ Annals of Surgery, 1892, xvi, 356.