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SURGICAL CASES OCCURRING IN THE MASSACHUSETTS GENERAL HOSPITAL. SERVICE OF DR. GEORGE H. GAY.—NO. VII.

STRANGULATED HERNIA; OPERATION; RECOVERY. GUN-SHOT WOUND OF BACK; REMOVAL OF BALL FROM WITHIN THE SACRUM; RECOVERY. FRACTURE OF THE SPINE; RECOVERY.

Reported by Mr. H. P. QUINCY.

[Communicated for the Boston Medical and Surgical Journal.]

CASE I.—*Strangulated Hernia; Operation; Recovery.*—E. R., native of Ireland, single, 18 years of age, was admitted into the Hospital Dec. 8th, 1866. Patient tells a very irregular story about herself. It seems that there has been a swelling for two or three years in the usual situation of femoral hernia of the right leg; sometimes a little smaller, but never entirely disappearing. Patient is decided on this point. She hinted at an increase of pain and swelling at her menstrual periods. Her attention was attracted to this swelling on Friday at noon, on account of pain, swelling and tenderness, similar to what she has had previously, only greater in degree.

At the first examination, on Friday night, a rounded swelling, the size of an English walnut, was seen in the usual situation of femoral hernia, felt distinctly below Poupart's ligament, and in a measure compressible from side to side. Taxis was not persevered in, on account of the tenderness. No constitutional symptoms present. No fever, rapidity of pulse, abdominal tenderness, swelling, nausea or vomiting. Patient has been in the habit of going three or four weeks without an operation of the bowels. Last operation was nine days ago. Catamenia generally regular, without pain. Last catamenia twenty-six days ago. Had taken six drachms of Tarrant's aperient without effect. Slept poorly on Friday night, on account of pain in the swelling, which was undoubtedly intestinal. During Saturday, pain about the same, with a feeling at times of nausea. Swelling about the same.

Dec. 9th.—Last night had free operation from bowels after enema. Had some pain, and took opiates. Generally comfortable. Free from any complaint, except in the swelling. A little blush of red-

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ness on and in the neighborhood of swelling, with some œdema, but with no increase of tenderness. Dr. Gay came to the hospital with the intention of cutting down on the mass. A consultation was held, and the decision was adverse to any operation, on account of the very free discharge from the bowels after enema, and the absence of any fulness of the bowel. Flaxseed poultice. Opiates p. r. n. Liquid farinaceous diet.

Dec. 10th.—Catamenia present, but causing no additional pain or soreness in swelling.

15th.—For the last few days general condition the same. Fluctuation and bubbling evident in the swelling.

17th.—No abdominal or constitutional disturbance. No complaint except in swelling, which is diffused, extending from two thirds of lower surface of Poupart's ligament inwards to labium. Fluctuation evident. Crepitation not so distinct as yesterday. Patient having been etherized, an incision four inches in length, nearly parallel with Poupart's ligament, was made from the outer portion of the swelling to labium. A very large quantity of thick, greenish-yellow, fœtid-smelling pus was discharged, with masses of gangrened tissue. A roundish mass was felt united to the femoral opening, firm to the touch, nearly the size of a shagbark nut. On further examination, a portion of a covering was traced, in all probability the sac, and then a fatty mass—the omentum. In the centre of this, a greenish membranous strip, strong enough to be drawn upon by forceps, and two or three inches in length. This mass was about as large round as a common lead pencil. Along the side of this mass, which appeared to be in the femoral ring, a director passed into the abdomen. This mass, when completely stretched and spread out, in its gross appearance certainly looked like intestine. On microscopic examination, by Dr. Ellis, "nothing was seen but white, wavy, fibrous tissue."

18th.—Abdomen tense, tympanitic, tender and painful. Wound looks sloughy and gangrenous, with fœtid discharge; at times, by report of nurse, smelling fœcal. No decided fœces seen.

20th.—Countenance anxious. Had a chill during the night. Abdomen not so tympanitic, but the right half very tender.

21st.—Had three attacks of retching and vomiting last evening. Countenance anxious. Eyes sunken. Abdomen pretty soft; tenderness much less. Wound clean.

23d.—General condition much better. Small slough removed from wound.

24th.—Not so well. Countenance anxious and distressed. Complaints of pain and tenderness just above pubes on right side, extending from the region of the cœcum upwards along the direction of the ascending colon.

25th.—Discharge on poultice was of the color and smell of fœcal matter.

Dec. 29th.—There has been more or less discharge of fecal matter on the poultice for the last few days. General condition better.

Jan. 1st.—Free discharge from enema. Also a free discharge of fecal matter from the wound during the night.

16th.—After taking five grains of compound colocynth pill, repeated for three nights, had a free discharge from the bowels. After repeating the recipe, had another free discharge. Much better. Sitting up.

Feb. 10th.—About the ward. Wound nearly healed.

18th.—One or two dejections daily. Bowels in a better condition than when she entered the hospital. The wound was completely filled with granulations, but not entirely cicatrized.

Remarks.—The case was one where no connected history could be obtained from the patient, as she continually contradicted herself as to whether there was a swelling constantly or occasionally. When seen for the first time, although she had had no operation for nine days, she complained only of great pain in the swelling, accompanied with no constitutional symptoms. Although she was under observation for ten days, still there were no constitutional symptoms; and the operation was performed because there was evidence of pus, and the erysipelatous and cellular inflammation were increasing.

The gross appearances of the flattened membranous strip rendered it somewhat doubtful whether it was intestine or not. But from the symptoms afterwards, it was undoubtedly intestine; the fecal matter did not escape from the bowel externally till the gangrened portion had entirely separated.

The rapidity with which this artificial anus closed was remarkable, and it was attended with no annoying symptoms. When the patient left the hospital, her bowels were in a much better and more regular condition than before.

CASE II.—*Gun-shot Wound of the Back; Operation; Recovery.*—A. F. A., naval officer, at the attack on Fort Fisher, Jan. 15th, 1865, received three wounds. When within forty yards of the parapet, thirty-eight feet high, he was struck by a ball in the right leg, inflicting a flesh wound. He was also struck by a ball in the left groin, which passed through his body and caused him to fall upon his face, in which position he received a shot in the right lumbar region, the wound of which is parallel to the vertebræ. He arrived, five days after receiving these wounds, at the Portsmouth Hospital, Virginia, where they were dressed for the first time, he having kept them wet with water himself in the meantime. The wound in the back was reported as caused by a glance shot, and dressed with simple cerate. The other wounds healed in about two months. He remained at the hospital three months. Returned to his home, where he remained fourteen months, having his wound syringed out, with great relief. Seven months later, the ball was touched with a Nélaton probe, and found to be $10\frac{1}{2}$ inches from the opening. For the first six months,

small pieces of bone came away from the wound in the back. Eleven months after receiving the wound, he began to suffer great pain in the region of the sacrum, internally, as though an abscess was forming. Six months after, being advised to have an operation performed, he went to the Brooklyn Naval Hospital, where he remained nine months. Five months after entrance, and four months ago, the abscess broke into the rectum, giving great relief, discharging freely all the time, up to date of entrance into the Massachusetts General Hospital—the amount of discharge lately being two to three ounces daily. The wound and sinus had been examined by many naval and civil surgeons.

The situation of the wound is seen in the cicatrix, in the right lumbar region, running parallel with the vertebral column, three and a quarter inches long and an inch and a half wide, and situated three and a half inches from the vertebræ and two inches from the crest of the ilium. At the lower extremity of this cicatrix is a slightly raised granulating surface, not much larger than a pea, in the centre of which is an opening out of which pus is constantly discharging. A porcelain-knobbed, wire probe introduced into this opening passed easily downwards and inwards till it reached the internal projection of the ilium, where there was a slight obstruction, which the flexible character of the probe soon rode over, and again passed obliquely downwards and towards the median line, and then with some difficulty passed over a ridge of the sacrum and soon came upon something that felt like denuded bone. Once or twice, in introducing the probe, it was thought that denuded bone was touched about the ilium. No loose fragments of bone could be touched at any point. By measurement, the end of the probe was ten inches from the wound of the back, when denuded bone or a foreign substance was touched. On withdrawing the probe, no lead mark could be detected. It was again passed to the same spot, when the patient said that it would go no further. On pushing it as well as was possible at that distance in the irregular sinus, the probe made a turn to the left side, struck upon a foreign substance, and could be rubbed up and down against it, the patient at the same time saying that he felt a pain on the left side, along the inner extremity of the sacrum and coccyx. By deep pressure externally on the soft parts in the vicinity of the anus, nothing like the end of the probe, nor any impulse, could be felt. On withdrawing the probe, there was a distinct, irregular black mark, evidently from lead, upon the *side*, but nothing upon the *end*, of the porcelain ball.

There was now every indication that the ball had been touched, and that it was situated upon the left side of the median line, and beyond the spot of the denuded bone tapped or hit by the probe. The distance of the extremity of the probe from the back wound was eleven inches.

The irregularity of the sinus, its small calibre and great length,

presented sufficient reasons why no attempt would be feasible or judicious to extract the ball by that passage.

The patient was now thoroughly etherized, and placed in the lithotomy position, in order to see what information could be gained by a rectal exploration. On introducing an anal speculum and opening its blades, a dirty, brown-yellow pus, to the amount of an ounce or more, immediately flowed out. After carefully sponging the interior of the rectum, two irregular superficial ulcerations were seen posteriorly, just within the border of the anus. No sign of an opening could be seen in any direction. The porcelain probe was again passed into the back wound, as far as it would go, and then along side of it a flexible catheter. Milk was then thrown through the catheter, which, with the very great assistance of a bright sunlight, was seen coming in a very small stream into the rectum through an opening about the size of a knitting needle, situated on the right side of the median line, and about three inches from the anus. A small probe was insinuated into this opening, while the milk was flowing, and after passing it a little distance it touched the other probe, introduced from the wound in the back. Another probe was passed along the side of the one in the bowel, and a third one was wedged between the two, so that gradually the opening was enlarged sufficient to admit a common polypus forceps. Pus, but not offensive, now escaped from the enlarged opening. The porcelain probe was again touched by the polypus forceps, and some denuded bone was felt, but no loose fragments nor ball. By opening forcibly the blades of the forceps, an aperture was made, so that in a short time the forefinger could be introduced after drawing down the intestine. With great difficulty the finger was further forced through a small sinus, with unyielding, indurated walls, till it came to a cavity, at the end of which it touched denuded bone.

The course of the right forefinger was upward from the anus to the opening, then curved and straight backward at a right angle to the denuded bone; there was a cavity on the right side of the median line, the walls of which and the bone were felt with the end of the finger. The left forefinger was then introduced and passed to some distance to the left of the median line, and on curving it downward and forward the ball was felt, packed tightly and transversely across the coccyx. The end of the finger could just reach it, but could not move or displace it. Different instruments were then employed, but all for a time slipped over the presenting surface. No amount of pressure upon the ball caused any prominence or impulse externally. Further attempts were made to seize the ball, and at last, by a well directed movement of a strong curved scoop, it was raised out of its bed, and easily removed with a pair of polypus forceps. It was an elongated conical ball, weighing an ounce. Water dressing. Half a grain of opium every four hours; one grain of opium at night.

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March 16th.—Slept well; very little pain. Had slight chill yesterday afternoon. The sinus was syringed out by means of a flexible catheter introduced into the wound of the back, and the discharge allowed to escape per anum.

19th.—There is a small discharge of laudable pus from the opening in the back; also an escape of air, which patient had noticed before the operation. Fine pieces of bone were seen in the discharge from the anus.

21st.—Syringing omitted, on account of its causing pain. Laudable pus discharged through the anus. A piece of bone, of the size of a pea, came away.

23d.—Had a free movement of the bowels without cathartic, causing much pain.

25th.—Has free operation of the bowels daily, with very little pain. Free discharge of pus from lower opening; but slight discharge from upper. Opium omitted.

26th.—On examination, the opening was found two and a half inches from the sinus, and so much contracted that it was not thought advisable to force the finger into it.

28th.—As there was some soreness and swelling around the opening in the back, it was laid open, and the edges kept apart by lint.

April 4th.—On examination, the sub-rectal hardness and swelling had become very much less. The opening into the bowel was not larger than a pea.

Reports that he is in better health in every way than at any time since injury. Appetite good. Bowels regular, with no indication of any fecal matter passing into this opening of the bowel, the purulent discharge never showing any fecal discoloration. The discharge from bowel, by report of patient, is fully two thirds less than before the operation. Has gained flesh and strength, and is able to walk about with much less discomfort in every way than at any time since the injury. Wound of back looks and granulates well; the edges well kept apart by lint. Still a little escape of air from wound in the back, probably from the communication of the lower end of sinus with the bowel.

CASE III.—*Fracture of the Spine; Recovery.*—O. S., seaman, fell from the masthead to the deck, a distance of sixty feet, striking on his back. He entered the hospital Sept. 19th, one hour after the accident, and complained of great pain in his back and difficulty of breathing. The back was bowed in such a manner as though the bodies of the vertebræ were broken anteriorly. Over the sacrum the integument was swollen and ecchymosed. Complained of great pain in the left ankle and foot, which were somewhat swollen. Able to move his legs. Sensation good. Was put to bed in as comfortable a position as possible, on his back. Water drawn with catheter. No priapism.

Sept. 20th.—Pulse 96. Complains of great pain across his breast.

Refers the pain in his back to the region of the sacrum. Both extremities natural, as far as motion and sensation are concerned. Still complains of pain in left foot and ankle. A compress, wet with laudanum and water, was placed on foot and ankle. Bladder not very full. Has had no dejection. A catheter was introduced and allowed to remain. Twelve leeches were applied to the back on either side of the spine.

21st.—Pulse 112. Motion and sensibility of legs still good. Great pain in left foot and ankle. Back looks better. Compress wet with laudanum and water, and covered with oil-silk, was applied to back. As the catheter caused so much pain, it was removed. The urine was drawn three times during the day; of normal character. No dejection.

22d.—Motion and sensation of legs good. Still complains of pain on passing catheter. Has had two free, loose discharges, and one involuntary, during the night, after two cathartics and an enema.

23d.—Urine has to be drawn much oftener, and is cloudy. Still complains of pain in left foot and ankle.

24th.—Has a frequent desire to pass water, but is unable to do so. A small-sized catheter was introduced and allowed to remain. Has had no priapism. There is a tender spot at the lower dorsal vertebra on deep pressure, and also a feeling of hard prominence, with depression.

25th.—No apparent loss of power or sensation in lower extremities. Still complains of pain in left foot and ankle. The point of tenderness is between the last dorsal and first lumbar vertebra. No crepitus can be distinguished. Six leeches were applied over the last dorsal vertebra, and six over the sacrum.

26th.—Has had no dejection for four days.

27th.—Had six dejections after taking cathartic. Feels much better to-day.

Oct. 4th.—Complains of very little pain. Can move himself about in bed. Can pass his water without catheter, but has scalding pain along urethra during micturition.

8th.—Is able to sit up with some help. In doing so the posterior curvature, beginning three inches below scapulæ and extending to a line with the upper edge of the ilium, is plainly seen without any distinct local depression or prominence. No particular local pain on pressure. Urine ammoniacal.

17th.—Sits up a short time every day. Complains of some pain in right hip.

Nov. 10th.—Walking about without difficulty. General condition good.

25th.—The sensation of temperature in the right thigh below the buttock is less than in the left. In determining how closely the points of a pair of compasses may be approximated upon the skin over the back of the thigh and yet be felt as two distinct points, the

minimum distance for the right thigh was three inches; for the left, half an inch. A plaster cast of his back was made for the Warren Museum.

Reports of Medical Societies.

ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.

FIRST DAY.

THE annual session of the Massachusetts Medical Society began in Boston on the 4th inst. Prior to the assembling of the Society, a large number of its members visited the Massachusetts General and City Hospitals, where they witnessed several surgical operations.

At 12 o'clock the Society met in Mechanics' Hall, Bedford Street, the President, Henry C. Perkins, M.D., of Newburyport, in the chair. Over one hundred members were present. About two hours were occupied in the reading of papers by the members of the Society. The first paper presented was by Dr. George Derby, on the "Lessons of the War to the Medical Profession."

Dr. Derby reviewed some of the points in which real additions had been made to the knowledge of the profession by the experience of the recent war, not only in surgery, but concerning the preservation of health by hygienic precautions and hospital arrangements. Referring to the complaint that amputations by army surgeons had been unnecessarily frequent, he observed that early in the war the error of the surgical force was in not amputating enough, and that many lives had been lost by efforts to save limbs. There were many cases, he said, where immediate amputation was the only means of saving the life of a wounded man. A soldier when hit was elated, proud of his wound, surprised that he was not killed outright, and was ready for anything. It was perilous to delay amputation until this feeling subsided and reaction came. Dr. Derby spoke particularly of gun-shot injuries involving fracture of the shoulder, as a point on which a great deal had been learned during the war. The number of cases of excision during the war he stated was very large, amounting in all to more than eight hundred. During the Crimean war there were but 38 cases of excision in the French army, and but 16 cases in the French navy.

Anæsthetics were universally used in the Federal army during the war. In the field, chloroform only was used, ether being too bulky for transportation. The ambulance system was brought nearly to perfection during the last two years of the war, not only as regarded the construction of the vehicles, but also in the efficiency of the corps having charge of them. In this connection Dr. Derby spoke of the arrangement, adopted by the Prussians in the recent war, of ticketing every wounded man, by the surgeon who first found him, with a card stating the nature and extent of his injury, so that when he came to the hands of the surgeon who was to attend to his case, no time need be lost in re-examination.

Great saving of life had been effected by the adoption of our excellent hygienic system. While during the Mexican war our armies had lost from ten to twelve per cent. by disease, and while the allies in the Crimean war lost 25 per cent. from this cause, enough was already known of the statistics of our recent war to warrant the assertion that the Federal army lost only 6 per cent. by disease. It would be no exaggeration to say that the number of lives saved was greater than the whole number lost by disease and battle.

In conclusion, Dr. Derby spoke of the improvements in hospital arrangements during the war, and gave a detailed description of the most perfect form of building finally adopted.

The next paper was by Dr. Henry G. Clark, on "The Contagiousness