OSTEOPLASTIC RESECTION OF THE SKULL

Stated Meeting, held April 27, 1916

The President, DR. CHARLES N. DOWD, in the Chair

OSTEOPLASTIC RESECTION OF THE SKULL

DR. LUCIUS W. HOTCHKISS presented a man, twenty-one years of age, who was admitted to the medical side of Bellevue Hospital, January 30, 1916, with a history of only two or three weeks' duration. He noticed, without any previous injury or any history of venereal or other disease, that he began to have dull frontal headache which has been continuous and is accompanied with increasing dimness of vision. Once or twice he has had vomiting of a projectile type. On admission he was dull and stupid looking; no scars, pigmentation or eruption, his general physical examination negative. The blood-pressure was from 160 to 180 mm. Hg. As his symptoms continued to grow worse, tumor was suspected and the case was seen by a neurologist who found chronic papillædema, some disorder of the olfactory sense, a distinct weakness of the right facial region,—central type, and slight weakness of the right arm. He became incontinent, was mentally dull but not aphasic, all of which in the opinion of Dr. Kennedy pointed to a lesion of the left side of the brain, probably frontal. Wassermann—negative. Lumbar puncture,—60 c.c. clear fluid under pressure. Cell count—60. Noguchi—positive.

In view of the signs of increasing intracranial tension as shown by the diminution in vision and the condition of the fundus, a subtemporal decompression on the right side was recommended, to be followed later by a broad exploratory operation upon the left side to locate and remove, if possible, the cause of the trouble.

The right subtemporal decompression was done by Dr. Vosburgh with great relief of the symptoms—the headache disappearing and the vision improving. At this operation great intracranial tension was found and relieved—wound healed.

Two weeks later the exploratory operation was proceeded with, as follows: A broad horse-shoe-shaped flap was marked out so as to afford a good exposure of the left frontal region of the brain. The base of the flap was well down upon the squamous plate of the temporal bone where the bony flap was broken through.

The first incision was made parallel to, and a finger's breadth above, the supraorbital ridge from the zygoma to a point three-fourths of an inch from the median line of the skull; the second incision extended

backward from this parallel to the median fissure and about three-fourths of an inch to the left to a point opposite the upper end of the Rolandic fissure. From this a third cut was made, passing across the left parietal and temporal region to a point above the ear, thus marking out a large osteoplastic flap, with a narrow base in the temporal bone, near the base of the skull. The Hudson drill was used to make openings at several points after the periosteum had been pushed back, and these openings were connected by sawing through the skull with a Gigli saw. The large flap was fashioned without much hemorrhage and was fractured at the desired point. When the flap of bone was laid back, it was found that a very wide exposure of the left frontal region of the cortex had been obtained. As there was no evidence of intracranial tension shown by bulging of the dura, and as the patient at the end of an hour showed some shock, the flap was replaced and the search for the possible tumor postponed until a later date.

LEFT INGUINAL HERNIA

DR. JOHN B. WALKER presented a man twenty-seven years of age. First noticed a swelling in upper part of left scrotum one year ago; no injury and has not worn a truss. When standing there appears in upper portion of the left scrotum a soft elastic mass which is reduced through the external inguinal ring into the abdomen. The left side of the scrotum is small, undeveloped, and the left testis lies in the inguinal canal just internal to the external ring and between the aponeurosis of the external oblique muscle and the internal oblique and the transversalis and it cannot be brought below the external ring.

Gas and ether anæsthesia. A four-inch incision over the middle of the left inguinal canal, through the skin, fascia and aponeurosis of the external oblique muscle. The sac and cord structures are lifted up. A catgut ligature is passed underneath them and used as a retractor. The sac is opened and found to be congenital. It is separated from the vas and vessels, its neck freed high up, transfixed and ligated with No. 1 catgut. The lower portion is used to form a new tunica for the testis. By very careful dissection the testis is freed from the shortened fascia which has retained and prevented its descent. The vas and vessels are found sufficiently long enough to permit the testis to be brought down into the scrotum. The internal oblique and transversalis muscles are united to the lowermost shelving edge of Poupart's ligament by four interrupted No. 2 chromic gut sutures. The aponeurosis of the external oblique is closed by a continuous No. 2 chromic suture. The skin is closed by a zero plain catgut subcuticular suture.

CARCINOMA OF COLON

The duration of the operation has been 40 minutes. The patient will remain in bed for twelve days, will wear a bandage for three weeks, after that no further support will be required.

FRACTURE OF NECK OF FEMUR

Dr. JOHN B. WALKER presented a man, fifty-four years of age, moderately stout, who two days ago fell, striking on his left hip. He was unable to rise or to stand when lifted up. He was brought to hospital in ambulance with a Hamilton side splint. Outward rotation was present, also three-quarter-inch shortening. A radiogram was taken which showed an irregular oblique fracture through the neck of the left femur.

The patient was placed on the Hawley extension table and anesthetized with ether. The patient was drawn down to the perineal post, the perineum being protected by a thick pad; the right foot was attached to the right foot-piece of the extension bar and the right leg was then gently abducted to its normal limit in order to serve as a guide for the injured leg. The left foot was attached to the left foot-piece of the extension bar. Extension was applied until the shortening was overcome and then the leg was abducted to correspond with the normal leg. After carefully bandaging the leg with cotton wadding, a plaster case was accurately applied from the lower border of the ribs to and including the left foot. The left knee was slightly flexed. After the plaster had become solid it was cut through anteriorly from the knee to the toes so as to avoid any undue pressure. The anesthesia required about thirty minutes. The patient will remain in bed with the case for about five or six weeks. The case will then be removed up to the knee and the patient allowed up on crutches, but the patient must not bear any weight upon the left leg until the end of twelve weeks.

CARCINOMA OF COLON DISTAL TO SPLENIC FLEXURE

Dr. JOHN A. HARTWELL presented a woman forty-two years of age who had been admitted to the hospital two weeks previously, suffering from an acute intestinal obstruction that had been present for five days. At the time no history could be obtained which gave any clue to the cause of the obstruction; accordingly, a suprapubic laparotomy was performed, through which enormously distended coils of small intestine presented. No exploration was possible until these coils were emptied by several punctures with the trocar and cannula, supplemented by suction. The tumor in the left upper abdomen was then palpated and it was determined that the patient's condition would not justify an attempt at its removal. A lateral cecostomy was performed with a Paul's tube.

The post-operative condition was satisfactory. Fæcal discharge was thoroughly established at the end of twenty-four hours, and the patient's condition became such as to justify an attempt to remove the growth. Owing to the cæcostomy wound, and a superficial infection in the suprapubic wound, it was deemed advisable to completely isolate these from the operative field. This was done by covering them with rubber dam made adherent with chloroform, over which adhesive plaster was tightly applied. Before operating this was painted with 7 per cent. iodine, and the usual preparation of the upper part of the abdomen with 3½ per cent. iodine was done. This necessitated the transverse laparotomy incision, which was carried out midway between the umbilicus and ensiform, from the midline to the midaxillary line. The exposure thus obtained was satisfactory, and the final closure of the abdominal wall was without difficulty. The carcinoma was found to be an annular tumor of about two inches in extent, and after removal was demonstrated to leave only a lumen of the diameter of a lead pencil. It was firmly adherent to the peritoneum posteriorly, directly over the kidney. The tumor was approached by dividing the colon 3 inches below it between Payr's clamps, and the two ends were then closed by ligating directly around the bowel just proximal to the clamp, and inverting the crushed and cauterized end inside a purse-string suture of Pagenstecher reinforced with some interrupted Pagenstecher stitches. A lateral anastomosis was then done by means of the Roosevelt clamp, between the transverse colon and the descending colon, the same technic being used as in the ordinary gastroenterostomy.

Dr. Hartwell explained that in doing this no continuous linen suture was used, and that for the hæmostatic suture he preferred the simple through-and-through buttonhole rather than the suture with the loop on the mucosa. Drainage tubes were led out through the lateral extremity of the abdominal incision in such a way that they would provide an outlet in case of leakage from either closed end or the anastomosis.

Dr. Hartwell expressed the opinion that the four or five inches between the anastomosis and the closed end of the splenic flexure would not be the cause of trouble because the reverse peristalsis would very easily prevent undue distention of this portion. In fact it was hoped that this pouch would in some sense act as a reservoir to prevent the too prompt discharge through the anastomosis.

NOTE.—Dr. Hartwell reported the post-operative progress of the patient as satisfactory, and the danger of a fistula seemed to be past at the time of the report. The bowels were moving normally and the fecal discharge through the cæcostomy was almost nothing.

CHRONIC PERFORATION OF DUODENAL ULCER

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DR. GEORGE WOOLSEY presented a man thirty-one years of age who was admitted to the hospital April 21, 1916, complaining of pain and tenderness in the right upper abdomen. In May, 1914, he had had his appendix removed; since then no digestive trouble until April 10, 1916, when a burning pain began in the epigastrium, relieved for about an hour by eating. On April 10th, he had a sudden sharp pain in the right subcostal region, persisting until admission as a constant sharp pain, relieved somewhat by lying on right side, and radiating frequently to the right shoulder. When lying on the back there is sometimes pain in the left tenth interspace posteriorly. No vomiting and no blood in stools or sputum. No previous similar attack.

Examination showed considerable tenderness and resistance over the right rectus below the costal margin. The temperature, 101.5 on admission, came gradually down to normal in three days. Test meal showed the following: 60 c.c. recovered; free HCl; total acidity 57; no occult blood. X-ray examination showed a very high arched right dome of the diaphragm, and corresponding to this at the right base, posteriorly and in the axillary line there are dullness on percussion and decreased breath sounds, and vocal and tactile fremitus, from the eighth space down. The tenderness and resistance gradually diminished. The signs pointed to a cholecystitis, the X-ray to a subphrenic abscess or abscess of cyst of the liver. Aspiration of chest was negative.

On operation, April 27th, the pathological findings were as follows: There were recent adhesions all through the right upper quadrant of the abdomen, some of them between the liver and diaphragm, but the dome of the right lobe of the liver was free. On freeing very firm old adhesions between the edge and under surface of the liver, the duodenum, pylorus, omentum and gall-bladder, an old abscess cavity lying between the duodenum and pylorus and the liver and containing about one ounce of pus was opened. Corresponding to this is a sharply outlined, indurated area on the anterior wall of the duodenum, due to an ulcer which at present is closed. Gall-bladder contained no stones but is thickened and contracted, probably due to extrinsic inflammation.

Procedure.—The abdomen was opened by a 4½-inch transverse incision on the right side 1½ inches above the umbilicus. The adhesions were separated, the abscess contents sponged out, a posterior short-loop gastrojejunostomy made with two rows of No. 0 chromic catgut, and the gall-bladder shelled out from its thickened coverings. Cystic duct clamped and sutured. A cigarette drain was introduced to abscess cavity and across stump of cystic duct. Wound sutured in layers.

CHOLECYSTITIS

DR. GEORGE D. STEWART presented a woman, age fifty-one, who has a family history of tuberculosis. Previous history—was treated for tuberculosis at Otisville during the past nine months. Never had typhoid. Menstruation regular. Operated on four years ago for mastoiditis. Three years ago she was seized by sudden pain in right hypochondrium, constant, dull, aching in character, without radiation, relieved on the third day by a severe attack of vomiting, jaundice appeared after the initial attack and persisted for several weeks. Similar attacks have occurred every one or two months since; in all there was pain followed by vomiting and jaundice. The last attack occurred five months ago and was characterized by weakness and loss of weight. Her physical examination showed evidences of tuberculosis over both clavicles; slight tenderness over the gall-bladder, marked tenderness over the appendix. Clinical examinations were not significant. Radiographic examination states that there was nothing abnormal in either urinary tract, but that calculi were present in the gall-bladder.

The operation history is as follows: Moschcowitz transverse incision. Appendix removed (normal diameter at tip but merely a fibrous cord between tip and base). Gall-bladder distended. No calculi. Cholecystotomy. Drain.

Pathological report shows appendix atrophic. Cultures of bile showed colon bacillus.

Remarks.—The interesting thing about this case was the utilization of the transverse incision recommended by Moschcowitz for operation in the upper abdomen. It was the first time Dr. S. Stewart has used this incision, and he made it under the direction of Dr. Moschcowitz, who was present. It was easily made, gave a remarkably good exposure and was easily closed.

The fact that the nerve supply was spared and the majority of fibres, both muscular and fascial, with the exception of the rectus, were separated rather than divided, would warrant, it seems, a favorable prognosis as to the occurrence of hernia in the future.

The case was also a tribute to the uncertain value of the X-ray in detecting biliary calculi.

GASTRIC ULCER—PYLORECTOMY

DR. JOHN DOUGLAS presented a man, age forty-seven, who has had attacks of sharp epigastric pain followed by vomiting for the past seven years. Vomiting relieves pain,—but patient occasionally vomits with-

EMPHYEMA OF THE THORAX

out pain. Pain bears no relation to the ingestion of food. No hæmatemesis or melæna. Feels well between attacks.

Physical Examination.—Negative except for slight tenderness in the epigastrium. String test positive 47 cm. from teeth.

Laboratory Examination.—Wassermann negative. Stools negative for occult blood. Gastric contents practically normal. X-ray examination shows perforating ulcer of lesser curvature.

Operation.—Vertical incision through right rectus muscle. Indurated ulcer with crater 1 cm. in diameter on lesser curvature about 3 cm. from pylorus found. A V-shaped excision, or a Balfour cautery operation would have caused so much deformity near the pylorus that a pylorotomy was deemed the operation of choice. This was done by the typical Billroth No. 2 method with a posterior gastrojejunostomy, using chromacized catgut throughout.

Convalescence was uneventful. There was no postoperative vomiting, and no leakage or drainage from the wound.

EMPHYEMA OF THE THORAX. MAJOR THORACOTOMY AND MOBILIZATION OF THE LUNG

DR. HOWARD LILIENTHAL presented a man, twenty-four years old, who had been admitted to the Fourth Division at Bellevue Hospital on April 18, 1916.

His temperature was 102 degrees. Pulse 120. Respirations 24.

The illness for which he was admitted began about January 10, 1916, with lancinating pain in the left side of the chest, dyspnoea, cough and, later, vomiting. Gradually progressive weakness. No night sweats. Continuous pain.

Physical examination showed flatness over the left chest with absent fremitus. Heart displaced to right.

Urine 1034, no albumin or sugar. Few hyaline casts.

Blood 18,600 leucocytes, 72 per cent. polys., 20 per cent. lymphocytes.

Probatory aspiration yielded thick pus which on culture showed streptococci.

X-ray showed from the back, fluid, from the front, fluid, to the fourth interspace, air above. Well-marked level fluid line.

In nitrous oxide and oxygen anæsthesia administered by Dr. Doran, a long seventh interspace incision was made down to the pleura. The chest was then emptied through a small incision into the thoracic cavity, using the suction machine.

Pleurotomy then continued to the anterior axillary line or a little

NEW YORK SURGICAL SOCIETY

beyond it. Rib spreader put in, but it was necessary to cut the seventh and sixth ribs at their angles in order to gain sufficient room to work, the left chest being much contracted by the thickened pleura. Lung covered by tough but not very thick membrane. This was incised from above downward and other incisions were made at right angles to the first. The membrane was stripped away but not removed. Lung slightly wounded at several points but good expansion secured. Gauze drainage at the angle of the wound.

EMPHYEMA OF THORAX

DR. LILIENTHAL presented a man, who had been operated upon for left empyema of the thorax by rib resection in the posterior axillary line, in January, 1916.

There had been continued drainage of large quantities of pus and the patient was in poor general condition.

X-ray showed collapse of lung with large pleural effusion.

Two weeks before, Dr. Lilienthal had operated, making a long intercostal thoracotomy in the seventh interspace and cutting the sixth and seventh ribs posteriorly. The rib-spreading retractor was inserted. The lung had been found covered by a tough thick membrane which obliterated all landmarks. This membrane had been incised from above downward and again in two places across the first line of incision. The lung now expanded nicely and the wound was closed except for gauze drainage at the site of the original thoracotomy. Two days later the gauze had been replaced by a tube put in for the next forty-eight hours and then removed. The patient had done remarkably well and the wound was entirely healed except for a small granulating area not connecting with the thoracic cavity.

The operation which Dr. Lilienthal performed is recommended as a substitute for the more dangerous and crippling thoracoplastic procedures.

APPENDICITIS WITH DECEPTIVE SYMPTOMS

DR. SETH M. MILLIKEN presented a woman, age twenty-three, who was admitted to the Fourth Surgical Division of Bellevue Hospital, January 29, 1916, with a history of sudden sharp pain in the epigastrium which radiated to the right side, followed by nausea and vomiting. On admission she had a leucocyte count of 20,600, with 80 per cent. poly. There was a slight tenderness at McBurney's point. Her mother did not "approve of operations" and consent was refused. The next day the

FRACTURE THROUGH THE NECK OF RADIUS

blood-count was 14,200, 74 per cent. poly., with no local symptoms. She remained in the ward one week and was discharged with a diagnosis of appendicitis. She was readmitted on April 26th, with a recurrence of the pain in the right side. Her blood-count was 6500, 59 per cent. poly. There were no abdominal symptoms, except slight tenderness about McBurney's point and slightly above it.

Operation.—Iodine preparation. Paramedian incision about three inches long, the cæcum easily exposed and appendix delivered. There were no adhesions. The appendix was very large, acutely distended and injected at the distal end and the tip showed beginning inflammatory necrosis. Fine Pagenstecher hæmostatic purse-string inserted above the base of the appendix, after ligating mesenterium. Appendix amputated with cautery, stump inverted, purse-string closed. This was covered in with a fine catgut figure-of-eight suture. The pelvis was normal to palpation. Wound closed without drainage.

Time of operation, 23 minutes. Gas-ether anæsthesia, 40 minutes.

At the end of the fourth day, patient's condition was perfectly satisfactory, wound clean.

Second Case.—Woman, age nineteen. Seven weeks ago had attack with pain, nausea and vomiting, the pain shifting to the right side. She was in bed two days, did not come to the hospital. Present attack began two days before admission, which was April 26th. On admission, her blood-count was 14,000, 79 per cent. poly. There was slight tenderness in the lower right side. No resistance, no mass. Vaginal examination showed intact cribriform hymen. Rectal examination showed uterus small, in normal position, no masses in fornices. Did not appear sick.

Operation, April 27th.—Iodine preparation. A three-inch paramedian incision, enlarged upwards and downwards to allow exploratory palpation, which revealed no abdominal abnormality. The cæcum, easily delivered, showed a very long not inflamed appendix with a slight constriction at the very tip making it pointed. The appendix was removed as in the previous case. Wound closed without drainage.

On the fourth day, she had been entirely relieved of her pain and has no symptoms of any sort.

Operation was 40 minutes. Anæsthetic, gas-ether, 48 minutes.

FRACTURE THROUGH THE NECK OF RADIUS

DR. T. A. SMITH operated upon the following case:

L. G., male, 12 years old, admitted to Bellevue Hospital April 21st. Five days before admission child fell down several steps, striking on

the flexed elbow. There was much swelling, discoloration and pain, and after five days of treatment at home for a sprain of the elbow he came to Bellevue Hospital. Examination showed right elbow much swollen, discolored and tender; tenderness most marked over head of radius; no crepitus. Pain on flexion and extension of elbow, and extreme pain when forearm is supinated and pronated.

X-ray shows transverse fracture of neck of radius with forward dislocation of head of bone.

Operation.—Vertical incision of posterior aspect of joint directly over head of radius. Joint opened, and upper fragment found displaced forward lying crosswise to the shaft and entirely detached from orbicular ligament.

It was thought best to remove the head of the bone rather than to attempt reposition of the fragments. This was done and the wound closed; the elbow flexed at right angles and held in a sling without splints; passive motion to be begun on the third or fourth day.

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