TRANSACTIONS

OF THE

NEW YORK SURGICAL SOCIETY

Stated Meeting, held April 10, 1918

The Vice-President, DR. WILLIAM A. DOWNES, in the Chair

RECURRENT PERITONEAL ADHESIONS WITHOUT EVIDENT PERITONITIS

DR. ROBERT T. MORRIS presented a woman upon whom he operated nine years ago for fixation of the kidneys, subsequently for suspension of the uterus, and four years later did a hysterectomy for fibroid uterus. The patient has a congenital ptotic habit, narrow costal angles, and low colon, but at the time of removal of the uterus there was no undue inflammation. There was good repair. Two or three years later the patient suffered from intestinal obstruction which he considered due to the presence of adhesions, and five weeks after the onset he operated, finding a few peritoneal adhesions involving the cæcum only. He separated these but failed to make a note at the time of the method of prevention of recurrence of adhesions used. He has, however, three resources, Senn's omental graft, Cargile membrane (which some experimenters believe causes the formation of peritoneal adhesions but which he does not believe is true in the human) and aristol film. In cases in which there is much oozing from the site of adhesions, the aristol film is not applicable and here he prefers the Cargile membrane. The aristol film makes a mechanical obstacle to recurrence of adhesions: There is a gradual disappearance of the aristol by the ordinary fatty metamorphosis of cells and in a year or two it has entirely disappeared.

The patient presented did pretty well without further evidence of intestinal obstruction until November, 1917, when there was evidence of marked intestinal obstruction; operation disclosed no adhesions at the site of the former adhesions, but well up above the cæcum was a very strong band from the parietes surrounding the ascending colon; this was liberated. Shortly after that she again had symptoms of intestinal obstruction, and on March 28, 1918, another operation disclosed most extensive adhesions involving the transverse colon, several loops of ileum, and at least thirty minutes was spent in the separation of these adhesions. Such an extensive lesion coming on without any evident peritoneal inflammatory process is considered by Doctor Morris as a most interesting condition. In several similar cases he has attempted to discover if the adhesions were due to toxins or to parenteral bacteria; in many cases cultures showed anaërobes or the colon bacillus free as a parenteral bacterium; in other cases no results were obtained from the cultures. He is much in doubt whether such adhe-

sions are caused by injury to the endothelium by parenteral bacteria or by toxins excreted at elective affinity sites.

Dr. William A. Downes did not consider it necessary to look for a bacterial cause for these adhesions but laid more importance upon the mechanical conditions arising at the time of operations, stating that in his own cases he believed the handling of the viscera by dry gauze, rough handling, and allowing the intestines to come in contact with the skin which has been painted with iodine or other antiseptics is often responsible. A minimum amount of handling, the use of wet pads, and as little trauma in every way is the thing to be desired. He considers some patients more prone to the development of adhesions than others.

Dr. Willy Meyer called attention to a method of treatment not sufficiently practised, that is, in such cases where we apprehend the formation of adhesions, particularly after the removal of tumors, and raw surfaces that cannot be covered with peritoneum remain behind. It has been found of value in such cases to place the patient soon after the wound has closed in a frame with electric lights regularly every day or every other day for from half an hour to an hour, making use of the superheated air.

Dr. R. T. Morris, in closing, stated that the points called attention to by Doctor Downes were well made, but he has frequently said the same thing; he is very careful not to allow any iodine to get into the peritoneal cavity, since finding in experiments with rabbits that carelessness in this regard was productive of iodine adhesions. In regard to handling the viscera he is extremely particular, and in the case reported the most extensive adhesions occurred in parts of the bowel that had not been touched previously.

SUBOCCIPITAL DECOMPRESSION FOR TUMOR OF THE BRAIN

Dr. Seward Erdman presented a boy of thirteen years who was admitted to the New York Hospital, on February 8, 1918, with the complaint of occipital headache of five weeks' duration increasing in severity and with occasional vomiting for three weeks previous to admission. In his previous history there was little to throw any light on this condition. Family history negative. His left leg was injured by a carriage wheel two years ago. No history of injury to the skull. Without any preceding trauma, or middle ear disease, about the first of January he began to have occipital headaches, at first slight, then very severe. Three weeks before admission he vomited on three successive days, once each day. For the past two weeks he has done very poorly at school, although previously bright. Is very nervous and unable to keep arms and face still. His severe headache interfered with sleep. While in the medical ward, where he stayed for four weeks, the case was thoroughly considered and a number of tests were made. The Von Pirquet and the Morro tests were negative. His blood Wassermann was negative and spinal fluid, of which 15 c.c. were removed, showed a pressure supporting a nine-inch column of mercury; there were nine white blood-cells, 77 per cent. lymphocytes; spinal fluid Wassermann negative. This

spinal fluid was injected into a guinea-pig and showed no evidence of tuberculosis. Examination upon admission, February 8, 1918, showed occasional movements of the muscles of the forehead with lifting of the eyebrows. Knee-jerks were not elicited; there was no Babinski reflex and no ankle clonus. Slight enlargement of lymphatic nodes. An X-ray of the skull (anteroposterior view) showed a slight clouding of the right maxillary antrum suggestive of a sinusitis, but there was nothing about the past history or in the examination of the nose or throat to throw any light on this condition. On admission his leucocyte count was 15,700, with 85 per cent. polynuclears. February 21st, white blood-cells 11,800, 82 per cent. polynuclears. On February 16th, ten days after admission, Dr. J. Ramsey Hunt stated that "the character of the headache is suggestive of organic lesion in the posterior fossa. There is beginning slight optic neuritis. Gait uncertain, especially on turning. No spontaneous lack of coördination as in pass-pointing and no adiadokokinesis; no nystagmus." On this same date Dr. Colman W. Cutler found a "slight papillary œdema involving the nasal part of both discs. More marked on left. Elevation of two diopters." The patient continued to complain of severe pain in the back of the neck and slept only with medication. For two weeks after admission, he vomited once or twice a day and complained of extreme dizziness when his head was raised. On February 20th, Doctor Cutler examined him again and found swelling of the right disc, 3 D., with flame-shaped hemorrhages and left disc 2 D. On February 23rd, there was no change in the eye grounds. On the 28th "swelling of the disc had not increased in either eye, but choked disc was more marked and hemorrhages were more numerous." In view of the fact that the patient was not improving under medication with iodides and with the positive evidence of cerebropressure increasing and the damage to his optic nerve, decompression suggested itself and was performed on March 7, 1918.

Suboccipital Decompression.—A horizontal incision slightly curved from mastoid to mastoid was made and then a median incision. The posterior part of the foramen magnum was removed, exposing freely the posterior aspect of the cerebellar hemispheres. On opening the dura there was marked bulging of the cerebellar hemispheres but no increase of fluid; the right side bulged more than the left. Inspection and palpation did not reveal any tumor. For about ten days following operation there was little change in the boy's mental condition; he did not vomit during this time, although he has subsequently vomited three times; he lay still in bed apparently in a great deal of pain and showed no interest in anything, having to be fed by hand. Two weeks after the operation there was a marked change in his condition, he began to be interested in his surroundings, looked at pictures and books, has since read books and finally he began walking about holding on to the beds. Doctor Cutler examined his eyes again on March 23rd, sixteen days after operation, and found that the "elevation of the nerve in both eyes was not measurable. The upper nasal edge was slightly blurred. Vestiges

of hemorrhage noted along nerves with exudate more marked on right side." His gait was still somewhat unsteady but not ataxic. His dizziness continued for four or five days after he was up. Although tumor of the cerebellum was not verified at the operation, his improvement following the suboccipital decompression has been so striking that the case seemed worthy of presentation.

There is at present slight bulging in the suboccipital region with well marked pulsation.

DR. ALFRED S. TAYLOR stated that sometimes a deep cyst would give physical signs as described in this case and one cannot be sure by palpation alone whether or not such a condition exists. He suggests a blunt exploring needle to determine this point. With regard to the incision he considered it of interest that Doctor Erdman had used the crossbow incision when he had a median incision, stating that in a boy like this with a long thin neck one can get good exposure without the median incision and this would save a considerable amount of time and bleeding. In many cases he considers it wise to make the curved part of the incision with the removal of muscles over the occipital bone, and if one then does not have sufficient room to expose the cerebellum properly the median part of the crossbow can be made.

LUETIC OSTEOMYELITIS OF THE ULNA

DR. J. M. HITZROT showed a young woman, aged twenty-two years, who was admitted to the New York Hospital on March 21, 1917, for a luetic condition of the left ulna. She contracted lues about two years ago and was not treated. She injured the left arm by a fall from a horse one year ago, and fell again in December, 1916, at which time a swelling appeared near the elbow, and the arm has since been painful and useless. On her admission to Doctor Kent's clinic she had a gumma over the olecranon which was discharging and which exposed the bone. There was a fracture of the middle of the shaft of the ulna which the X-ray showed to be pathological. Wassermann positive. From March 28th to May 28th, she had nine injections of diarsenol, two of 0.3 mgm. and the others of 0.4 mgm., without any effect upon the bone.

On June 5, 1917, the ulna was excised from the olecranon down to within one inch of the head, leaving the periosteum which could only be distinguished as a structure on the anterior surface of the bone. The bone was completely necrotic, moth eaten, cheesy-white in appearance, and did not bleed except at the upper and lower ends. The exposure of what seemed normal bone was then made at each end, and a tube of connective tissue with periosteum on one face was made by running catgut stitch with the ends of the bone at each end of the tube. She made an uneventful recovery, but showed no signs of bone regeneration, and eleven weeks after the first operation, *i.e.*, on August 17, 1917, the two ends of the ulna were exposed by a long incision through the scar of the ulnar bed, exposing the upper and lower ends of the ulna. A groove was then cut in both ends exposing

the medulla and a wedge-shaped graft nine inches long and about one-half inch wide was then cut from the left tibia with the Kenyon saw. The graft had periosteum and endosteum. The graft was then placed in the grooves previously formed and fastened in position by kangaroo tendon ligatures at each end. The muscles, planes and skin were closed about the graft with interrupted sutures without drainage and the arm put up in a sugartong moulded plaster splint.

She made an uneventful recovery and the splint was removed in a little over nine weeks, the arm then being solid. The X-rays show the graft anchored at each end and the last X-ray, January, 1918, six months, shows the beginning enlargement of the central portion of the graft. Since her operation, she had had several doses of diarsenol and during her convalescence the region of the wound was treated with 30 per cent. calomel ointment.

ABSCESS OF THE LIVER

Dr. Forbes Hawkes presented a man, twenty-four years of age, who, seven and a half weeks ago, was taken with fever and malaise and went to bed. He ran a temperature of 101–102° F. and pulse-rate of 80–100. His Widal was negative and there were no malarial organisms found in the blood. About one week later he developed some pain in the right side, under the ribs anteriorly, and some râles were heard above the gall-bladder region, over the liver. The pain was variable but fairly persistent. He had no chill. Leucocyte count, 14,000, 79 per cent. polymorphonuclears, and he was constipated. His temperature then gradually went down to normal and he took a trip to the Adirondacks to get braced up. While away he was fairly comfortable but had some pain in the right side at times. His pain then became more pronounced and his temperature reached 102° F. by mouth, pulse-rate 90. He looked a little flushed. His liver seemed somewhat enlarged and tender to the right side of the midline in the epigastrium. He had some right upper abdominal rigidity. An X-ray of his gall-bladder region was negative as to calculi. A Wassermann was also negative. The urine showed a few casts and some red blood-cells. He went into the Nassau Hospital in Mineola one week later. An exploratory incision was made over the gall-bladder region. The gall-bladder and anterior portion of the liver were normal. The portion of the liver directly above the right kidney was found to be enlarged and there were a few slender adhesions of the posterior edge of the liver to the posterior peritoneum. The adhesive process had not progressed sufficiently to make it a safe procedure to open the abscess at that time; so a gauze strip was passed down to this area just above the right kidney and brought out through a stab-wound in the right loin. The anterior wound was closed. Five days later this stab-wound was enlarged anteriorly, and the upper pole of the right kidney located by the finger and pushed anteriorly out of the way. The bulging liver was then felt and the abscess opened with the finger. About six ounces of

yellowish, sticky pus, with no distinct odor, were evacuated. Fenestrated rubber tube drainage was used. The peritoneum was not opened in this second operation. The patient made an excellent recovery, draining profusely. He healed up solidly in about six weeks. He has remained well since then. The cultures of the pus showed "Staphylococcus aureus" (Sondern Lab.). In looking back for some cause for the abscess, the only thing that could be considered as a possible factor was the fact that in his work he often lifted the rear end of an automobile, supporting the frame against his right side. It is possible that he may have traumatized his liver in this way.

CARCINOMA OF THE RECTUM

Dr. Forbes Hawkes presented a man, forty-five years of age, from whom he had removed a carcinoma of the rectum seven years and nine months previously. An almost annular carcinoma was found about 2½ inches from the sphincter. The so-called combined operation was performed as follows: Through the lower abdomen the rectum and sigmoid were detached from the bladder and posterior pelvic attachments up to the promontory of the sacrum and the abdominal wound temporarily closed. An incision was then made slightly to the right side from the anus to just above the level of the sacrococcygeal joint. The attachments of the coccyx on the right side were divided and the sacrococcygeal joint opened and the coccyx reflected to the left. Through this opening the lower rectum was mobilized, the lateral vessels being clamped and tied. Large clamps were then applied to the bowel about two inches above and below the growth and this portion removed. The bowel ends were united, end-to-end, by suture, and gauze drainage inserted. The abdominal wound was reopened and some oozing found from the raw surfaces in the pelvis, necessitating the placing of a small cigarette drain. The patient made an excellent recovery except for the establishment of a small fecal fistula in the lower part of the posterior wound which has persisted to the present time but which interferes very little with his work. He passes some gas through it at times but no fæces unless he has a diarrhœa. He keeps his bowels in good condition by taking an enema every night after his work is done and this way he has no trouble when he is on the stage. The anastomosis scar is a linear one without any evidence of recurrence and the patient is up to his usual weight. The pathological report on the tumor was: "Adenocarcinoma—glands not involved."

UMBILICAL HERNIA: THE CONDEMIN-RANSOHOFF TECHNIC

Dr. H. B. Delatour read a paper with the above title, for which see page 732, lxvii (June, 1918).

Dr. William B. Coley said that at the Hospital for Ruptured and Crippled from 1891 to 1918 there were 162 cases of umbilical hernia operated upon; 58 in children, with no relapse; 104 adults with 3 relapses. The Mayo

operation was done in 77 cases with one relapse and in 34 cases the vertical overlapping method with two relapses. He considered that there was no harder operation in surgery than that for strangulated umbilical hernia presenting a mass of omentum or intestine which it is impossible to unravel or to separate the adhesions, and he believes that the plan advocated by Bloodgood of doing a two-stage operation is good. He stated that a few cases which had proved fatal in his hands he thought might have had a different result had the two-stage method been used. In most of the non-strangulated cases with judicious care the adhesions can be separated and the contents reduced. In closing such wounds he strongly opposed the use of silkworm-gut, silver wire or any form of non-absorbable suture. He stated that in the early days when there was more or less uncertainty as to the possibility of properly sterilizing absorbable sutures, there might have been some justification for the use of non-absorbable sutures, but at the present time there was none. He stated that kangaroo tendon or chromic gut remains unabsorbed sufficiently long to fulfil all the requirements of the radical cure of all types of hernia.

With regard to the use of silver filigree or silver wire in umbilical or ventral hernia, he pointed out its many disadvantages and expressed the belief that better results could be obtained with kangaroo tendon.

DR. WILLY MEYER in commenting upon the value of the Mayo technic in the radical operation for umbilical hernia referred to the procedures of the past before its introduction where in many instances poor results were obtained. He then viewed the various technic up to the present time and stated that he had used the silver filigree with great satisfaction in a number of cases; he does not unravel the contents of the sac but reduces them *en masse*, placing on top a silver filigree. He has, however, abandoned this method after an unpleasant experience: In fastening the filigree with silver wire sutures he caught inadvertently the wall of a loop of intestine. Ten days later a fecal fistula occurred which was a source of great trouble. He feels, however, that certain types of cases are still best treated by the filigree, particularly after resection of the abdominal wall for tumor. It is the only method to prevent formation of a hernia; it should be made during the operation. He considers the Mayo technic a tremendous advance upon former methods. Regarding strangulated hernia of the type mentioned in the paper they are frequently dangerous, becoming gangrenous in a remarkably short time. He cited an instance of a patient with a long-standing hernia which had become irreducible and which suddenly became strangulated; there was no vomiting and a physician was not called for twelve hours. At this time she was promptly removed to the hospital and operated on; the entire amount of small intestines which was strangulated was totally gangrenous and resection was necessary; this patient made a good recovery; had there been any further delay she would doubtless have succumbed.

With regard to the opening of the sac he believed the majority of surgeons made a transverse incision of the sac about one-quarter of an inch

above the surface of the abdominal wall, after having thoroughly exposed the fascia around the umbilicus. This transverse incision of the sac close to the umbilical ring usually exposes these parts in such a way that repair is easy.

Dr. James M. Hitzrot cited one experience in connection with opening of the sac as recommended. This was a case occurring two years ago at the New York Hospital in an Italian woman of thirty-seven, who had been sick for twenty-four hours. She had had a big umbilical hernia for a great many years. The symptoms resembled an intestinal obstruction and were considered as due to strangulation in the hernial sac, but on opening the sac, a gangrenous appendix was found to be the cause of the trouble. This appendix and the gangrenous omentum were removed and the wound closed without drainage. Except for a slight wound infection in the skin, she recovered promptly. The wound was closed as in a radical cure.

Dr. William A. Downes stated that he had had two cases of strangulation of umbilical hernia due to bands within the hernia sac; one in an old lady in poor condition, where he simply opened the sac, liberating the band, leaving the hernia *in situ;* in the other he opened the intestine, drained it, and closed it later. He considered that some cases must be treated conservatively, especially when the patients are in poor condition.

Doctor Delatour, in closing, stated that he had had a large number of cases of strangulated umbilical hernia and since using the Condemin-Ransohoff method his mortality had become practically *nil.* He feels much more confidence in this method than he ever did in any other used by him. He agreed with Doctor Downes that with a patient in poor condition milder treatment might be justified, but in cases of bands within the sac as mentioned by him he thought it possible to find trouble here. He does not approve of the artificial anus, as it leaves a gangrenous mass in the sac. After the sac is lifted up the intestine is in full view and if loose can be easily withdrawn; the neck of the sac is divided, giving free access. If the intestine is gangrenous no attempt at withdrawal is made but immediate resection is done. The incision should be made internal to the ring which is a simple procedure and is a time saver. In a number of cases where he found a fairly large mass of intestine not gangrenous but adherent and looking as though there was obstruction he has not felt justified in taking time to straighten out the bowel, but replaced it in the abdomen on the theory that previous to the obstructive symptoms the intestine had been in that condition, and in none of these cases has he had further trouble. He states that the Condemin-Ransohoff method leaves the wound in condition for a Mayo closure. He was prompted to bring this matter before the profession again as he had recently seen a strangulated hernia attacked in the old way, an hour being spent in an attempt to release the contents of the sac, while by this method the whole operation of freeing the intestine and omentum could have been done in fifteen or twenty minutes.

In reply to Doctor Downes' query he stated that in every case he would

open the sac, dividing the ring, and proceed according to the character of the intestine found. If the gut looks viable and responds to stimulation it should be left, otherwise resection is indicated.

Stated Meeting, held April 24, 1918

WILLIAM A. DOWNES, M.D., Vice-President, in the Chair

EFFECT OF ELECTROMAGNET ON SCAR TISSUE

DR. W. C. LUSK presented six cases treated with the electromagnet radiator of E. K. Müller in the treatment of painful or tender scar tissue and stiff joints following immobilization. These cases form the basis of a paper to be published later.

MYELOMA OF THE CLAVICLE

DR. J. M. HITZROT presented a man, forty years of age, who in January, 1917, sustained a fracture of the right clavicle. Nine months later, the patient noticed a small lump at the attachment of the sternomastoid muscle; a second lump appeared three weeks later at the point of fracture in the clavicle, and this had been growing slowly. He also noticed a small lump on the pectoral border in the axilla, which apparently had no relation to the other two masses. The only inconvenience noted was the fact that his collar became too tight. The patient was admitted to the New York Hospital on February 20, 1918, at which time there was a tumor in the region of the lymph-nodes just behind the attachment of the sternomastoid and one in the posterior triangle. His blood Wassermann was negative, there was no indication of these masses being tubercular and it was indefinite as to whether or not they were related to the fracture. At operation the incision was carried along the clavicle, cutting the sternomastoid muscle, and exposed a rather curious tumor, totally encapsulated, looking much like an hypertrophied lymph-node. This was removed and then the second mass, which was fixed to the under surface of the clavicle, was found to spring from the medulla, the cortex being entirely destroyed; for this reason it was thought that this lump had its origin in the medullary cavity. The clavicle was therefore excised. The patient made an uneventful recovery.

Histological examination showed the tumor to belong to that curious type of tumors named myeloma; it was a plasma-cell tumor, and these are very uncommon. A section of the tumor showed the characteristic cellular picture and excentric nucleus staining deeply with deeply staining cytoplasm resembling the plasma cell of Unna. The small lump at the pectoral border which was increasing in size proved to be a lipoma. The sternomastoid muscle where it was fastened to the pectoral became contracted and a piece of tissue of both pectoral and sternomastoid muscles was removed, but there was no evidence of recurrence of the first tumor.

Vance presented a paper on multiple myelomata in the *American Journal for Medical Sciences*, in 1916, in which he divided these tumors into five groups, of which he makes the fifth group the plasma cytoma and gives the

literature in these cases. They are not common and outside of their histological picture they are not yet definitely classified.

The patient presented was given five X-ray treatments after the operation, at Doctor Ewing's suggestion, on the supposition that the X-ray is beneficial in preventing the recurrence of cellular tumors of this type. Whether or not his fracture was the cause of this tumor of the clavicle which occurred at the point of fracture nine months later is still a question.

Dr. William B. Coley expressed it as his opinion that the injury might be considered the causative factor of the tumor, and stated that he had observed eight cases of sarcoma of the clavicle in two of which he performed total excision. In one case operated upon nine years ago there was a rapidly growing round-celled periosteal sarcoma following a severe strain from sliding down the banister. This case was treated with the mixed toxins of erysipelas and bacillus prodigiosus for five months, following total excision of the clavicle, and there has been no recurrence. He recently saw the patient and had planned to show him at the meeting this evening, but was unable to do so, as he had joined the Aviation Corps, and had left New York. At the present time the patient has perfect functional use of the arm. He then mentioned another case of total excision of the clavicle in a boy eight or nine years old, operated upon by him some seven years ago for round-celled periosteal sarcoma in which the same line of treatment was followed but in which a recurrence developed in two months, and, although the patient was treated by Doctor Abbe, with radium, he died in five months from the time of the original injury. The tumor in this case occurred two weeks after a fall, striking on the end of a wooden box.

Doctor Coley also referred to several inoperable cases and to some treated originally by other surgeons than himself. Among these was a case in which the entire clavicle was excised by Dr. Maurice H. Richardson for round-celled periosteal sarcoma, in May, 1908. Immediately after the operation the patient was referred to Doctor Coley for toxin treatment, which was started in New York and continued later at home. At the time the treatment was begun there was considerable infiltration of the whole lower cervical region suggesting a recurrence or incomplete removal. The condition entirely cleared up during the next two months. The toxins were continued for nearly six months by the family physician, Doctor Trulock, of Dixmont, Maine. The patient is still well at the present time, nearly ten years after the operation.

Doctor Coley had personal notes from Dr. Thos. W. Huntington, of San Francisco, of another case of total excision of the clavicle for a periosteal round-celled sarcoma of the clavicle, in which the toxins were given for five months as a prophylactic, and the patient is still well, ten years later.

At the time of publication of his paper on "Sarcoma of the Clavicle: End Results Following Total Excision," in 1910, Doctor Coley was able to collect from the literature only 64 cases of total excision of the clavicle for malignant disease. Previous to 1893 there had been reported only 32 cases,

just two of which had remained alive and well beyond two years. In view of this fact Doctor Coley believed it fair to assume that the use of the mixed toxins as a prophylactic in the cases described played some part in preventing a recurrence of the disease.

DUODENOJEJUNOSTOMY

Dr. William A. Downes presented a young woman, 21 years old, who was admitted to St. Luke's Hospital, March 23, 1918, with a history that for the past year she had suffered from attacks of vomiting; coming on about three times a day; the vomiting has no relation to meals. She has had several attacks at night; there has been no blood in the vomitus; she has no acute pain, but at times has gastric distress which is relieved by vomiting, this distress is made worse by taking soda and food; has had no tarry stools, no jaundice. She was poorly developed and nourished, with opacity of both corneæ. X-ray shows large six-hour retention with enormous dilatation of the first and second portions of duodenum.

Operation (April 1, 1918).—Duodenojejunostomy.

Pathological Findings.—The first and second parts of the duodenum were very much dilated, being almost the same diameter as the stomach; there was a hard mass of glands at the head of the pancreas causing obstruction of the duodenum. Pathological report of these glands tuberculous.

The patient gained seven pounds in weight before leaving the hospital, and has continued to gain since. Vomiting entirely relieved and is able to take and digest all sorts of food.

Doctor Downes stated that the only cases of duodenojejunostomy of which he had been able to find a record were one by Doctor Stavely, of Washington, done for dilatation of the duodenum and one performed by Doctor Beckman for giant duodenum.

Dr. Willy Meyer stated that he had lately operated on a patient with all the clinical symptoms of pyloric obstruction which were corroborated by the X-ray which showed that the patient's stomach had remained filled instead of emptying. Operation disclosed a foreign body in the duodenum, which was found, on opening the intestine, to be a fruit pit. In the lower third of duodenum there was an obstruction due to a tumor of the head of the pancreas which had grown forward, stricturing the lumen. In suturing the small wound in the duodenum Doctor Meyer found the wall very friable and this in conjunction with other experiences leads him to the conclusion that the duodenum when distended is more brittle than other parts of the bowel. For the relief of the condition found in this case he performed a posterior gastro-enterostomy. The patient died suddenly thirty-six hours later, supposedly from perforation, but the autopsy failed to show this and death was therefore ascribed to his markedly debilitated condition.

GASTROCOLIC FISTULA FOLLOWING GASTRO-ENTEROSTOMY

DR. WILLIAM A. DOWNES presented a man, thirty-three years of age, who was admitted to St. Luke's Hospital, February 15, 1918. In June, 1913, he began to have pain and tenderness in abdomen, and in July, 1913, was operated on for chronic appendicitis. About two or three weeks later the pain returned as before. In the summer and fall, 1913, he had two periods of medical treatment of two weeks each for duodenal ulcer. Then recurrence of pain afterward. In December, 1913, he was subjected to a posterior gastro-enterostomy, and pyloric occlusion. Did not improve, could not retain food, lost eighteen pounds in weight. On January 28, 1914, a second operation by the same surgeon. X-ray had shown the gastro-enterostomy opening closed. This was enlarged. Symptoms continued off and on. Various medical treatments, or treatments for temporary relief were given. November 6, 1914, his abdomen was again opened and a large ulcer was found at the artificial opening; this was excised, and the gastro-enterostomy done again. Patient was in bad condition, the gastro-enterostomy was done, therefore, by means of a Murphy button; patient's life was at a very low ebb for several days following this operation, and convalescence was slow. In January, 1915, the old pains had returned. He was treated by diet and rest, but without much success.

During 1915 he had three serious hemorrhages into his bowels. In February, 1916, he was put upon a careful medical treatment of diet and alkalies with rest, and immediately began to improve. His pain left the second day of treatment and he began to gain weight rapidly so that within three months he had gained thirty pounds and returned to work shortly after this. Except for occasional bowel disturbances in the shape of diarrhœa he was entirely without symptoms until the summer of 1917, eighteen months later. He had continued the careful medical treatment with alkalies and diet over a full year, during the last few months of which it was less rigorous but still ample to control the acidity in the stomach. Off and on during October and November, 1917, he had attacks of diarrhœa. He had no pain with these. They were simply quick evacuations of the bowels with watery movements. In December, 1917, he first noticed the belching of an ill-smelling gas at times and an occasional nausea. But he had no vomiting.

In January, 1918, he had an attack of vomiting one evening and noted fecal material in the vomitus. This was corroborated by his physician. For a day or two he would have no trouble, and then for several days would have diarrhœa and occasional vomiting of fecal material. X-rays were taken and showed within an hour that bismuth was in the transverse colon after ingestion in the stomach, and later a bismuth rectal injection showed bismuth in the stomach within an hour. The diagnosis of fistula between the stomach and colon, either direct or indirect, was thus corroborated, and he was operated upon February 15, 1918. Examination showed that transverse colon had become adherent to the gastrojejunal cicatrix and had sloughed

through. The area of anastomosis was delivered into the wound, the communication between the colon and stomach determined, the colon stripped off the site of the anastomosis by blunt scissors dissection, and the rent in the colon repaired by three tiers of Lembert sutures, the gastro-enterostomy opening enlarged and repaired in the usual manner by three layers of Lembert stitches; the wound closed in layers about a rubber dam drain to the site of the anastomosis. The patient recovered without drawback and in less than three months has gained forty pounds in weight.

DR. JOHN ERDMANN stated that he had had a duplicate of the case reported, in a man twenty-six years of age, who was operated on for duodenal ulcer three years ago, having a pylorectomy with the gastro-enterostomy. Subsequent to operation he had excruciating pains in the left lower abdomen, and, seeking relief for this, he traveled from the Eastern to the Western coast; to Rochester; visited several sanitaria, and finally consented to Doctor Erdmann's doing an exploratory operation a year ago, when an anastomosis between the transverse colon, the duodenum, and the stomach was found. Doctor Erdmann suggested that this fistula might have been caused by the surgeon in taking the stitch between the transverse mesocolon and the stomach, putting his stitch through the colon. It was an interesting point that the persistent pain mentioned ceased immediately after closure of the fistula and enlarging of the gastro-enterostomy opening. This patient is now in good health and serving in France in the Aviation Corps.

COLOPEXY FOR PROLAPSE OF THE RECTUM

DR. WILLY MEYER presented a woman, aged twenty years, who had developed prolapse of the rectum during the past two years. The prolapse was 2½ inches long and appeared with each defecation. According to the nomenclature of Moschcowitz, it would be considered an incomplete prolapse. In this case Doctor Meyer made the McBurney incision, opened the peritoneal cavity parallel with the skin incision as wide as the intermuscular incision would permit, and placed the patient in the exaggerated Trendelenburg position in order to pull up sigmoid and rectum, put the latter well on the stretch. He then rubbed the parietal peritoneum and the gut with dry gauze and attached the lowest end of the sigmoid to the peritoneal incision with silk threads, closing the opening. The patient made an uninterrupted recovery and since the operation on February 25 of this year has had no further trouble. Doctor Meyer is not certain of a cure in this case and will watch the case with interest. However, he would be surprised to see it return, since he firmly anchored the sigmoid with the five silk sutures. He stated that in a large prolapse he would adhere closely to the Moschcowitz operation.

DR. W. C. LUSK said that he had seen two cases of prolapse of the rectum associated with loss in weight, one of them being greatly emaciated, in both of whom, with the restoration of normal body weight, the replaced prolapse finally remained in position.

GASTROGASTROSTOMY FOR HOUR-GLASS STOMACH

POSTERIOR GASTRO-ENTEROSTOMY FOR GASTROPTOSIS

DR. WILLY MEYER presented a woman, twenty-nine years of age, who had had stomach trouble for years, fermentation, pain, constipation, headache. She was very nervous and had lost steadily in weight. She had general enteroptosis, and particularly was the stomach affected; the greater curvature had sunk into the pelvis and formed a "water-trap stomach." According to the literature on such cases, any efforts at attachment by stitching the stomach are not encouraging. Doctor Meyer in this case decided to do a typical posterior gastro-enterostomy and to close the pylorus absolutely. He stated that he made use of Hueltl's wire stitching instrument which he considered particularly adapted to cases like this. The patient made a good recovery and since then has been but little troubled by her digestion, although she still must eat with care. Before the operation she was constipated, but since then her bowel evacuations have been spontaneous and normal. She has gained in weight.

GASTROGASTROSTOMY FOR HOUR-GLASS STOMACH

DR. WILLY MEYER presented a woman about thirty years of age who had been sick for many years. There had been frequent hæmatemesis in the beginning, but this had stopped, and she had persistent gastric pain which was not dependent on the ingestion of food. There were frequent vomiting spells. In December, 1915, she again had persistent vomiting with increasing pain; an examination of X-rays taken two years previously showed a most typical hour-glass stomach. A month later Doctor Meyer operated upon her, making a transverse incision. As she had a very sharply rising angle of the ribs and adhesions within the abdomen with contraction of the cicatricial bands toward the left particularly, it was absolutely impossible to pull the stomach forward sufficiently. Although Doctor Meyer would have preferred to add a longitudinal median incision, he considered it wisest to cut down in the median line to the peritoneum only and now had very satisfactory access. Here he found bands to both right and left and so many firm adhesions were present that he decided nothing short of an osteoplastic resection of the left costal arch would permit of proper operative procedure. The patient, however, was in a reduced condition. As it was found impossible to place clamps to do a gastro-enterostomy, he used the Murphy button for gastrogastrostomy. The button was then covered with a running suture. One stitch tore, perforating the stomach; he was compelled to stitch the proximal part of the stomach over this perforation, covering it with an omental flap. The patient made a good recovery, staying several weeks in the hospital to recuperate, during which time her pains entirely disappeared and she was able to eat anything without distress. She gained there quickly six pounds in weight. Previous to operation this patient had been constipated, but now has normal evacuations. She is able to do the work in a hard clerical position and no longer is conscious of her stomach.

DR. JOHN ROGERS stated that about two weeks ago he had a case with

a much distended stomach in which there was no vomiting but absolute constipation. When an attempt was made to pass a stomach tube it was found impossible and an area of tympanitic distention suggested a definite obstruction in the duodenum. Exploration showed this to be an hour-glass stomach with a tight cicatricial stricture about two inches from the pylorus and a rotation of the stomach so that the œsophagus was also obstructed. In this case posterior gastro-enterostomy was found very difficult but was performed without clamps by the anterior method and with a perfect result. A gastrogastrostomy would have been impossible. After the contents of the stomach had been allowed to drain into the jejunum, the œsophageal obstruction was found due to a rotation of the stomach forward to the right.

INTRA-INTESTINAL FIBROMA

Dr. Willy Meyer presented a man who came under his attention on March 2, 1918, in a condition of profound secondary anæmia following profuse intestinal hemorrhages. He is thirty-four years of age. On examination in the region of the cæcum a ballotting mass was discovered. For several days it was not felt again and careful examinations made of the patient were all of no avail. The X-rays showed nothing. There was some blood in the stool, however. Patient then had another hemorrhage and once more the small ballotting tumor was found in the right side. A right rectus incision was made. As soon as the abdomen was opened and the intestines pulled up there was found, six or seven inches from the cæcum, a tumor opposite the mesenteric attachment; this tumor was very vascular and had not interfered with the lumen of the intestine. The appendix was removed and the gut resected, then doing an ileocolostomy by lateral anastomosis. The patient made a good recovery and has had no further hemorrhage. Examination of the tumor proved it to be a very vascular fibroma *without ulceration*, and the question arises whether or not it could have been the cause of the profuse hemorrhages. Doctor Meyer believes that it was responsible, probably due to surface bleeding from the mucosa.

Doctor Meyer then showed a specimen from a somewhat similar case which had been under his care previously. This patient suffered from repeated attacks of intestinal obstruction. X-rays disclosed nothing. However, there was found a resistance occurring in various portions of the abdomen at different times and the patient complained of pain in the areas corresponding to this resistant mass. Operation disclosed an intussusception in the jejunum and on reduction of this there was found a typical intra-intestinal tumor. In looking over the mesentery a number of glands were found at its base and resection was performed. This necessitated the removal of a large amount of bowel. A lateral anastomosis was done and the patient made an excellent surgical recovery. Two days later, however, he developed pneumonia to which he succumbed within three weeks. Examination of the tumor mass proved it to be a fibroma.

Dr. William B. Coley stated that in his opinion some fibromas are

extremely vascular. He referred to a patient under his care suffering with a large tumor of the ileum in which, at exploratory operation, a wedge-shaped piece 1½ inches long and 1 inch deep was excised and showed a typical pure fibroma. The tumor then began to produce a very rapidly fungating mass at the site of the wound, and in two weeks this mass was as large as a goose-egg and there were several severe hemorrhages. A large fungating tumor was removed after exploratory operation and careful examination of the larger tumor showed in addition to the structure of fibrosarcoma certain areas much more cellular and undoubtedly of malignant nature—a type of fibrosarcoma.

TOTAL EXCISION OF BOTH PECTORAL MUSCLES IN OPERATIONS FOR CANCER OF THE BREAST

DR. WILLY MEYER read a paper with the above title, for which see page 17.

DR. JOHN F. ERDMANN stated that he would have to place himself in the list of those who did not remove all the pectoralis major and not the pectoralis minor once in ten times. He stated that he had given this matter much study in the way of following his patients and that he had never seen a metastasis occur in the portions left of the major or minor pectoralis in over twenty-five years' practice unless the muscle, that is the pectoralis major, was already involved at the time of removal of the breast. Those metastases which he has found have been osseous, with the exception of shotting of the skin or possibly a metastasis occurring in a gland left in the axilla. He also stated that in considering cases coming to him originally operated upon by other surgeons he could not recall a single case in which the metastasis had occurred in the portion of muscle remaining. He stated that he had seen Doctor Meyer do this operation many times and had as frequently heard him say that he left a portion of the pectoralis minor as a stump on which to graft the skin.

DR. FRANZ TOREK stated that he had time and again found a number of affected glands under the pectoralis minor muscle of such character that they would not have been discovered or suspected unless the pectoralis minor had been removed, and quite apart from the question whether or not the pectoralis minor might be affected, he considered this a strong indication of the advisability of always removing the pectoralis minor muscle; otherwise there is a certain portion of the gland chain running along the vessels that cannot be thoroughly exposed. He said that he had seen one case in which a stump of the pectoralis major left behind by another surgeon at its insertion into the humerus was the seat of a recurrence. This one case has proved to him that even a remnant of the pectoralis major where it is attached to the humerus may be a menace, and he is therefore a strong advocate, not only of partial but of extensive removal of both pectoral muscles.

DR. DEAN LEWIS, of Chicago (by invitation), stated that he considered Doctor Meyer's paper well timed in view of a tendency during the last few years to recommend operations in cases of cancer of the breast which are

incomplete. These incomplete operations are followed by a greater number of and quicker recurrences. This statement applies particularly to the use of a part of the pectoralis major muscle as a flap to cover vessels, with the idea of preventing œdema of the arm and limitation of motion. The incomplete operation without removal of the muscles is based on the statement of Bryant, of London, that he had never seen recurrence in the pectoralis major when the fascia covering it had been removed. Doctor Lewis considered this to be a fallacy. In all cases of carcinoma of the breast he advocated the removal of the sternal part of the pectoralis major and stated that the pectoralis minor muscle should always be removed, if a complete dissection in the axilla is to be made, because of the frequency with which Rotter's lymph-nodes are found. He stated that the loss of motion in the arm is due to a poorly planned flap and that in all cases good motion can be secured by making an axillary flap in cases of carcinoma of the breast. He again referred with regret to the fact that during the past few years some of the surgeons in the Middle West have been led to do incomplete operations on the advice of using the pectoralis major muscle as a flap to restore function of the arm.

Dr. Willy Meyer, in closing, stated that in regard to Doctor Erdmann's remarks, he had never seen a recurrence in the muscle, and he considered this question not at stake. His point was that entering between the two portions of the pectoralis major may mean to invite cancer infection and that the lymphatic vessels filled with cancer cells when opened, may carry the cancer to distant fields with metastases occurring far from the original focus. He is fully convinced that a certain number of metastases are directly invited by entering between the pectoralis major and minor muscles.

Relative to Doctor Erdmann's remark that he, Doctor Meyer, had frequently left a stump of the pectoralis minor muscle for skin-grafting purposes, this he acknowledged to be correct. What he left behind, however, was a stump of about ¼ inch attached directly to the ribs. It has been shown by many observations that primary cancer has never been found in the pectoralis minor muscle except in very advanced cases. Since the Handley addition enables formation of two large flaps, which usually can be closed by sutures, it is no longer justifiable, in Doctor Meyer's opinion, to leave a stump of any one of the two muscles behind.

Stated Meeting, held May 8, 1918

Wm. A. Downes, M.D., Vice-President, in the Chair

LARGE STRANGULATED VENTRAL HERNIA

Dr. Seth Milliken, Jr., presented a woman, seventy-five years of age, who was admitted to Lincoln Hospital, June 5, 1917, with a large postoperative ventral hernia following a myomectomy in 1906. In 1910 she was admitted to hospital with vomiting and abdominal distention, which, according to her report, was ptomaine poisoning. She had a good deal of trouble for a couple of weeks but under treatment was able to go

home, and until the date of admission had been practically a chair patient because of the large abdominal mass which made walking practically impossible. On admission she gave a history of severe pain and vomiting and straining without being able to move her bowels after the first effort. Under local anæsthesia of ½ per cent. novocaine with adrenalin a large incision was made, vertically, excising the former scar. A strangulated hernia, of which the intestine was not gangrenous, was released by opening below, as that was the only free margin of the sac. The sac consisted of three large pockets, the most superficial was below and was in the fat and easily freed; that did not release the obstruction; the next gut that was released was from a pocket extending three inches to the left and which had a wide open neck that was not constricted. Then dissecting down through trabeculated fat with a good deal of difficulty a small ring was found extending to the right through which the finger tip could barely be forced. On division of this ring the constricted gut was released and was found viable. The patient had no pain, the operation consumed fifty-five minutes, and when the gut was released the contents were reduced and the margins of the ring were approximated without special effort at overlapping. Chromic gut was used for the deep layer. She made an uncomplicated recovery and was out of the hospital within three weeks and has been perfectly well ever since. In November, 1917, she was able to visit her brother for the first time since 1910. She wears a corset which gives enough support and there is no evident hernia now; there is, however, a very relaxed abdominal wall.

Doctor Milliken presented a second case, a woman aged fifty-seven years, who for nineteen years had had a very large umbilical hernia which became irreducible two days before admission to the hospital, May 31, 1917. After a large transverse eliptical incision surrounding the hernia was made, a knuckle of completely black gut appeared; the ring was divided and normal intestine delivered. The gangrenous gut was then resected four inches free on each side. The mesentery was very fatty and a side-to-side anastomosis bringing the closed ends of the gut together in same direction was done. Patient made an uninterrupted recovery. A drain was put down through the right lower angle of the wound and there is now a small recurrence of the hernia at this point, which is, however, easily reducible. There was an overlapping done in this case, the upper flap being carried behind the lower flap.

SELF-INFLICTED INJURIES

Dr. Seth M. Milliken presented a woman, twenty-two years of age, who was admitted to Lincoln Hospital August 27, 1917, on account of an abscess in the abdominal wall. She was a well-nourished girl, with left arm disarticulated at the shoulder. Numerous scars on the left chest and abdomen. There was a curious sinus, the margins of which showed exuberant, tapioca-like granulations extending toward the umbilicus, near which was situated a large brawny mass. There was a profuse, thin, purulent discharge from the

sinus. Under gas oxygen anæsthesia an incision was carried through sinus for a distance of about six inches, where a hard substance which proved to be a wad of gauze about one-half by one-quarter inch, with a small safety-pin fastened through it was discovered and removed. Sinus was lined with the same watery-looking granulations which were thoroughly curetted out. Wound was packed loosely with gauze and allowed to granulate. About a week later a small pocket formed near outer end of granulating track which was opened by Doctor Brenner on September 6, and the patient was discharged with surface granulations on September 16, and perfect healing was noted in dispensary.

The case seemed one of great misfortune with some possible carelessness attached, until in December, 1917, he received a reprint from Doctor Lilienthal which gave the previous history of the case. The girl had been under Doctor Lilienthal's care at Mount Sinai Hospital in 1913, when she was seventeen years old. She claimed then that about two years before admission she had been bitten by a dog and that there had been several operations on account of infections of the left arm following the injury. There was tremendous board-like œdema of the entire left upper extremity, rather sharply limited just above the insertion of the deltoid muscle. There was an ulcer-like wound of the forearm with sluggish granulations. The ligneous œdema was most marked in the epitrochlear region, and in spite of the fact that the pulse, respirations and temperature were within the bounds of normal it was decided to explore the epitrochlear lymph-nodes, and this was done on October 4, by open operation. There followed several attacks of dermatitis, erysipeloid in character, each accompanied by an elevation of temperature, the redness, however, rapidly disappearing on the application of saturated solution of magnesium sulphate. The appearance of the arm and hand was that of elephantiasis, the fingers being held in the claw-like position resulting from flexion of the phalangeal joints, the metacarpophalangeal articulations being extended. This contracture was evidently due to the cicatrix of some previous operation upon the dorsum of the hand. The progress of the healing of the wound was extremely slow.

For the sake of the histological examination and also in the hope of relieving the condition a strip of the entire thickness of the board-like skin was removed on February 20, 1914, the incision extending from the middle of the upper arm to a point below the elbow posteriorly. This wound was closed by sutures and healed with rapidity. Nothing to explain the condition was found in the speciman.

When the patient had been in the hospital for some months it was decided to make a photograph of the patient. During preparation for the photograph the writer saw that she made an attempt to get rid of something near the upper part of the arm and on examination it was found that there was a narrow strip of adhesive plaster tightly encircling the extremity near the shoulder. It was then recalled that the patient had always kept her shoulders covered during examinations until she could prepare herself,

and this sometimes took several minutes. The sudden termination of the pathological appearances in a groove near the shoulder had been noted, but stupidly enough the cause had been unsuspected until the day of the photograph.

After the discovery of the adhesive plaster strip the arm was put up in plaster of Paris and only a few days later another photograph was taken which showed a decided diminution of the size of the limb. The patient had been kept in bed following this final operation with constant improvement. When she was permitted to go about, however, the condition became almost as bad as before, probably because she surreptitiously caused constriction of some sort. She was then put to bed and kept there under close surveillance, and by March 19, about a month after the discovery of the true cause of her trouble, the hands were of equal size and the skin practically normal. There was, however, some main en griffe due to the operation on the dorsum of the hand above referred to. The patient was then discharged and the prognosis was thought to be good. Three years later in response to a letter she appeared for examination. Since her discharge a shoulder-joint amputation had been performed! This operation had preceded her visit by about one year, or in March, 1916, and had been performed by Dr. Irving Haynes of the Harlem Hospital, who states that the patient had come to him with an absolutely helpless, contractured arm with osteomyelitis of the humerus, doubtless the result of infection from some of her numerous wounds. The patient made an uneventful recovery and her general health has remained good ever since. On examining her, however, there were found several large cicatrices on the left half of her trunk, two in the left mammary region, one in the posterior axillary line and in addition a large ulcerated granulating surface of the left upper abdomen. This wound had a peculiar gelatinous appearance and made the impression that some irritating substance had been frequently applied. Doctor Haynes also mentioned that a radiograph of the arm had disclosed the presence of three shadows in the forearm which indicated apparently pieces of needle, the eye being near the point, evidently sewing-machine needles, and our conclusion was that the patient must have inserted these herself. In this radiogram the groove in the soft tissues near the upper part of the limb can clearly be made out and I doubt not that the patient had again resorted to the rubber adhesive strip before presenting herself at the Harlem Hospital. The osteomyelitis of the humerus had been diagnosticated by the X-ray. From this it was evident that the sinus which Doctor Milliken opened had been present before March, 1917, instead of the two weeks as shown by the history. When sent for early in April, 1918, this patient showed perfectly healed scars on her left side, but on the right there was a punched-out ulcer in the upper part of the abdomen with the same sort of erysipeloid inflammation below it as existed around the abscess opened in August. She stated that the punched-out ulcer was the result of a small pimple which appeared about two weeks ago.

He now believes that the gauze drain removed by him had been pushed

out of sight by the patient and that probably the present condition is due to some self-inflicted injury.

DR. WILLIAM A. DOWNES recalled having seen years ago a similar case, that of a girl who went the rounds until she finally got her arm cut off. She was eventually proved to be a malingerer. She obtained adhesive plaster and fastened it tightly around her arm in the identical manner as shown in this instance.

SILVER FILIGREE IN TREATMENT OF UMBILICAL HERNIA

DR. FORBES HAWKES presented a woman who was first seen in March, 1903, at which time she had an umbilical hernia about the size of an orange and irreducible. She had weighed 303 pounds, but had lost a considerable amount of flesh. The operation consisted of an incision down to the hernial sac, the removal of the sac, and the insertion of a silver wire filigree, 2½ by 3½ inches. The filigree was used because it was feared that she would later regain her weight, the muscles thin out and the hernia recur. The wound healed promptly. She still remains in good condition fifteen years later. There has been no recurrence of the hernia. When she lifts her arms high up or bends over in heavy work she can feel the silver filigree (which was inserted subperitoneally, both recti being brought together over the top of the filigree).

DR. WILLY MEYER stated that he had practically given up the use of the silver filigree in the repair of umbilical herniæ since the transverse Mayo incision had come into use. He does believe, however, that there are cases with such a defect in the entire thickness of abdominal wall providing nothing for reconstruction where a silver filigree will prove not only of great advantage, but represents the only chance available for a cure, fascia transplantation included. He referred in particular to the total defects in the abdominal wall following radical excision of fibroma or fibrosarcoma of the parietes. Here the first closure of the hole is to be made with omentum, if available. The next layer is the filigree. He lay stress upon the necessity for making the filigree at the time of operation and not depending upon a made frame.

HARELIP TECHNIC

DR. THEODORE DUNHAM presented a child to illustrate two points—first, the original technic employed, and, second, to call attention to an unfavorable form of postoperative treatment which was adopted. The child had a double harelip with a not very wide cleft under the right nostril and a very wide one under the left nostril. With regard to the unfavorable postoperative treatment the use of dichloramine-T dissolved in chlorcazane was used in the hope that it would overcome the tendency to suppuration which appeared in the wound on the third day following operation. Its use, however, produced a reddening and eventually a separation of the skin surfaces, and in places even holes developed where the opposite freshened surfaces failed to unite. It was only by care that the lip finally healed. Doctor Dunham feels that the puckering of the scar tissue which has resulted in the three months since operation is entirely due to the use of dichloramine-T.

He then described the technic of his operation, illustrating the same by drawings. The novel point of the technic was to acquire sufficient relaxation so that the broad cleft could be closed in, without puckering the nostril. This was successfully accomplished by cutting out a wedge of skin on the cheek close to the nose and then sliding the lip across, at the same time closing up the wedge. That brought the angle of the wedge to the midline without disturbing the nose, and the wedge-shaped cuts allowed the lip to slip down with a meeting of the points, and they then met under the trimmed central portions.

CHINOSAL AS A DISINFECTANT

DR. W. C. LUSK presented a group of cases in the treatment of whom chinosal had been used. These are to be reported with a more full study of the subject in a paper to be published.

TUBERCULOUS KIDNEY

DR. JOHN DOUGLAS presented a woman of thirty-two years, who gave a history that one year ago she had pain in the left side of the abdomen and back. Later, pain radiated down along the course of the ureter; she had irregular chills with frequent micturition and bloody urine; she lost ten pounds in weight. Physical examination showed a slightly enlarged left kidney, with moderate tenderness on pressure. Cystoscopic examination showed congestion about the left ureteral orifice. The ureteral catheter entered with difficulty on the left side. The urine from the right side was normal, from the left side contained tubercle bacilli. A diagnosis of tuberculous kidney was made. Kidney incision and ligation of kidney vessels was followed by the pulling up of the kidney and the making of a small McBurney incision on the left side through which it was easy to palpate the ureter. An assistant then made traction on the kidney through the posterior incision when it was easy to feel the ureter down to the bladder. The ureter was freed by blunt dissection with the fingers and by blunt scissors to the point of entrance into the bladder, and was clamped close to the bladder, divided between two clamps with the cautery, and the lower end close to the bladder treated with a probe dipped in pure carbolic acid swabbing out the lining of the ureter. Both wounds were healed in two weeks. The operation was done on April 3, and although on discharge the wound was perfectly healed there is now (May 8) a little redness along the lower end of the wound.

Doctor Douglas stated that he had operated on several cases of tuberculous kidney where he had either tied off the ureter and left it in the lower angle of the wound, removing as much as possible through a high incision, or opening the ureter, pouring carbolic into it, followed by alcohol, and in many such cases a bad infection of the wound with delayed healing has resulted.

This patient is presented to demonstrate the advantage of the Lilienthal method of removal of the ureter in certain cases of tuberculous kidney.

HOUR-GLASS STOMACH: GASTROGASTROSTOMY

DR. JOHN DOUGLAS presented a woman whose history dates back sixteen years when she had an attack of abdominal pain which was then thought to be cholera morbus, but which probably was perforation of a gastric ulcer with the formation of adhesions. A year later she was treated in a hospital for gastric or duodenal ulcer and during the past fifteen years has had at times gastric symptoms. These became very severe four months before admission to the hospital, on November 2, when she gave the history of having vomited almost everything she ate for a month. She lost twenty-two pounds in weight. A series of X-ray pictures were made and that taken twenty minutes after a bismuth meal showed most of the bismuth in the upper pouch of the stomach and only a small amount in the lower pouch. A picture taken two hours after the bismuth meal showed most of the meal in the upper and only a little in the lower. A third picture taken shortly after the two-hour period showed some of the bismuth in the lower half. The picture taken at the end of six hours showed the residue in both pouches with a considerable distance between the two pouches. At operation it was hoped that a midgastric resection could be done, but she had an hour-glass stomach and an ulcer was found on the lesser curvature of the stomach; the lesser curvature was so adherent to the liver that resection would have necessitated going quite high up on the stomach, and separating the dense adhesions to the liver. She was in such poor condition that this seemed too great a risk, and therefore a gastrogastrostomy by suture was done. Following operation a second series of X-ray pictures were taken, and the first one, taken five minutes after the bismuth meal, shows distinctly the opening which at the time of operation was large enough to allow the passage of three fingers. The second picture, taken one hour after the meal, showed the stomach empty. The patient now empties her stomach entirely in less than three hours and has gained thirty-three pounds in weight.

DR. WILLIAM A. DOWNES stated that he had used gastrogastrostomy five times in a series of twenty cases of hour-glass stomach following ulcer. In the twenty cases the operations have been divided between gastrogastrostomy, gastroplasty, gastro-enterostomy, and midgastric resection, and these five of gastrogastrostomy have done just as well as any of the others, one case being alive and well at the end of ten years. Doctor Downes stated that in looking up the subject of plastic operation he had found gastrogastrostomy and gastroplasty were not recommended, as the results were said not to be permanent. He believes, however, in selected cases, although the ideal operation might be said to be midgastric resection, as it removes not only the cicatrix and possible ulcer and thereby prevents malignancy, that, the results of gastrogastrostomy may be excellent and that it is an operation of distinct value.

ACUTE DILATATION OF THE STOMACH

DR. JOHN DOUGLAS presented a boy, thirteen years of age, who on December 12, while coasting down hill on a sled, struck a tree and was knocked

unconscious. There was no head injury, but the blow he received was probably in the epigastric region. He was brought into the hospital in severe shock, he was pulseless, face and mucous membrane pale, so that he was thought to have an internal hemorrhage from rupture of some internal viscus. An hour later the pulse was rapid and weak, there was pain over the abdomen, right hypochondrium and back. Physical examination showed no signs of any rupture of abdominal viscera. He was tender over the lower ribs on the left side and gave an exaggerated tympanitic note, which suggested the possibility of a broken rib with pneumothorax. An X-ray was therefore taken and an enormously dilated stomach shown. On the introduction of a stomach tube much gas was withdrawn, relieving the symptoms. He could not be placed on his face because of the tenderness over his lower dorsal spine, suggestive of fracture. He vomited once the next day after taking food, but after that he had no further symptoms and entirely recovered.

The case is shown because of the fact that a diagnosis of acute dilatation of the stomach was based upon X-ray picture. Two years ago Lee presented before this Society an interesting paper on postoperative dilatation of the stomach. In other papers the etiological factors, such as traumatism, anæsthesia, fermentation, toxins after diseases, such as pneumonia, typhoid fever, etc., and pregnancy, have been mentioned. One possible factor in the etiology of all cases is air swallowing. In the case reported there was traumatism which knocked the patient unconscious and probably while unconscious he had the dyspnœa accompanying shock and air hunger and actually swallowed air in an attempt to breathe, thus causing the acute dilatation of the stomach. Experimentally on animals if an attempt is made to pump air into the stomach the patient will vomit, but if the pneumogastric nerves are cut no vomiting occurs and the stomach becomes distended even to the bursting point. Thus the trauma to the epigastric region, followed by air swallowing, would appear to be the causal factors in the acute dilatation present in this case.

DISEASES OF THE BILIARY TRACT AND PANCREAS

Dr. A. O. Whipple read a paper on "History Analysis Applied to Surgical Diseases of the Biliary Tract and Pancreas," and presented four cases illustrating this subject.

The first case was that of a man, thirty years of age, who was admitted to the hospital December 31, 1917, and discharged February 18, 1918. He came in with a history of jaundice, with loss of strength and weight, discomfort in the epigastrium for six weeks. The jaundice had come on after a severe attack of colic in the right upper quadrant radiating into the back and had increased in intensity. There was tenderness following the attack. Clay-colored stools and diarrhœa were characteristic and persistent. He lost between 35 and 40 pounds. Had no chills or fever. His past history was that he had had two previous attacks of pain seven and five months previously, with jaundice in the second attack; typhoid fever twenty-five years before operation. Examination showed a deep bronze color, tender-

ness in the epigastrium and right upper quadrant with indefinite signs of a mass in the epigastrium. Blood count showed 22,000 white cells with 90 per cent. polymorphonuclears; coagulation time was thirteen to sixteen minutes. The X-ray showed stones in the gall-bladder; bismuth X-ray of the stomach negative. Examination of the stools showed 60 per cent. fat. The Widal was negative. Given calcium lactate, transfusion and fel bovis three days before operation. Operation was under ether, and very dense adhesions were found about the gall-bladder and duct. At operation the gall-bladder and duct were found a mass of adhesions, there were pus and stones in the gall-bladder and common duct, the pancreas was firm, hard and much enlarged in the head. The cystic duct was two or three times the normal size, opening into the common duct, well below the normal insertion. The operation was cholecystectomy with a T-tube in the common duct after passing a probe into the duodenum. A hemorrhage not noticeable during operation continued from the wound, necessitating the repetition of the transfusion, which controlled the bleeding for a day. The hemorrhages occurred in much severer form four days later, and during the last four hemorrhages the most effective treatment was infusion of .2 of a 1 per cent. solution of calcium in normal salt solution. A hernia was expected, but because of the bile and external hemorrhage a portion of the rectus sloughed away. For four or five weeks, although most carefully treated, he grew worse and vomited. There was no bile in the stools. He was kept alive with glucose infusions 12 to 20 per cent. This was done notwithstanding the fact that he had a pancreatitis. On the thirty-fifth day he was markedly distended and complained of distress in the epigastrium. He was given a large enema and a double dose of pituitrin with a remarkable result. The next day the sinus was closed and he volunteered the information that he was getting well. He has gained 36 pounds since the operation and, although he has some pain in the lower part of the back and shoulder, this is not believed to have any relation to the operation.

The second case illustrated a double transverse incision now being used by Doctor Whipple. The man had a perforated duodenal ulcer at a first and second operation and a pericholecystitis. At the first operation he took anæsthesia badly; nine months later with recurrence of symptoms a posterior gastroduodenostomy was done. In the meantime an operation for appendicitis had been performed when the condition in the duodenum had been found but nothing done. The patient now is able to do heavy work, drive a car, and has a firm abdominal wall.

The third case was one in which no diagnosis was made until the receipt of the pathological report. Admitted to the hospital nine months ago, complaining of attacks of indigestion with typical history of digestive disturbance of chronic cholecystitis. Had had this trouble for six years with much belching of gas. Ten days previous to admission there was pain and tenderness in right upper quadrant, no jaundice. Had typhoid fever in childhood. Examination showed a constant tender point over McBurney's point and over the gall-bladder. An intrarectus incision following the Kammerer

principle, drawing the rectus outward and cutting through the posterior sheath, was made. The trouble was found in the gall-bladder, which was thickened, deeply imbedded in liver tissue, was very friable, and contained a large stone and pus, but no bile. The gall-bladder bed in the liver seemed soft, suggestive of an abscess, and cultures showed the bacillus coli communis. Cholecystectomy done, with drainage, and liver tissue removed for examination. Pathological reports showed gumma of the liver and lues of the gall-bladder with chronic cholelithiasis and cholecystitis. Subsequent to the operation a four plus Wassermann was obtained. He was put on mixed treatment and made an uneventful recovery and has done well ever since.

The next patient illustrated a recurring gall-stone. Admitted to the Presbyterian Hospital September 22nd, discharged January 14th. Had an acute cholecystitis with temperature of 102.4°, pulse 132. Previous history was that three years before she had a cholecystostomy at another hospital and following operation had recurring attacks of biliary colic with symptoms of indigestion. Had two pregnancies. Acute symptoms subsided and four days later with a normal temperature operation was done. Cholecystectomy, gall-bladder markedly inflamed, walls friable and several stones. Culture showed staphylococcus aureus. Made a smooth recovery.

DR. WILLY MEYER stated that the diagnosis of common duct stones was fairly easy when there was intermittent jaundice, the latter preceded by colicky pains. In regard to the diagnosis of cholelithiasis he mentioned the cholesterol test and the X-rays, stating that he believed the X-rays would show the stones in about 15 per cent. of the cases. He believes from 70 to 75 per cent. of cases give a positive cholesterol test. He also mentioned the great diagnostic value of the duodenal tube. In their hospital, out of ten cases with suspected cholelithiasis in which duodenal aspiration was used, in eight the bile examination turbidity pointed to stones, and the latter were found at operation. He referred to Doctor Whipple's intravenous use of glucose for nutritive purposes and suggested that this could be given by the Einhorn tube. He referred to a case of his own which ten days following operation developed a duodenal fistula. Here the wound rapidly began to be digested and eczema appeared. The longest tube in the market was allowed to travel down as far as possible during forty-eight hours. With its help glucose, milk with eggs, etc., were instilled by the drip method; the duodenal fistula healed.

With regard to the transverse incision in gall-bladder surgery he referred to the difficulty sometimes encountered with this as well as the perpendicular incision, and states that for the past three years he has used as often as possible Terthes incision. He believes in every instance this gives the best exposure.

Referring to the follow-up system, he considered it a very essential point in all up-to-date hospitals, but an expensive addition. At their hospital the follow-up system had just been introduced. As a matter of investment it is the most splendid that a hospital can make, because it produces scientific results.