TRANSACTIONS
OF THE
PHILADELPHIA ACADEMY OF SURGERY

Stated Meeting Held January 9, 1922

The President, Dr. George G. Ross, in the Chair

DISARTICULATION OF THE HIP

Dr. James K. Young presented a patient, age sixteen, male, who without history of trauma, noted pain in left knee and thigh, December 15, 1920.

On examination by the speaker January 3, 1921, there was swelling of left leg, beginning just above the condyle, reaching its maximum at three inches above and tapering off above that to a distance of four or five inches. Tender, limitation of flexion, knee-pain on motion. No involvement of joint. No pulsation. Wassermann was negative to all antigens. Urine negative for Bence-Jones bodies; decided amount indican, no albumin, sugar or casts. The blood count showed: Red cells, 5,300,000; white cells, 14,700; hæmoglobin, eighty-seven per cent.

Physical examination of chest, few subcrepitant râles both apices. First X-ray January 10, 1921. Periosteal sarcoma starting about middle of femur, involving soft parts and invading shaft just above internal condyle. X-ray chest April 7, 1921, showed tuberculous right apex but no metastases.

Was treated by X-ray January 11, 1921. This was continued until a few days before operation.

Operation March 21, 1921. Complete disarticulation at hip by Wyeth method.

Microscopic examination showed spindle-cell sarcoma, arranged in nests, but large amount of necrotic material and some cells resembling giant cells. Shows extensive necrosis. There are a number of multinucleated cells of bizarre character. Highly malignant.

BONE TRANSPLANTATION USED FOR TIBIAL CYST

Dr. James K. Young also presented a female, age eighteen, who at six years of age was kicked in the left ankle. About two months later the lower end of the tibia began to swell. She received no surgical treatment until about three years ago when she was operated upon and the lower end of the tibia was scraped. Following this operation, she was temporarily relieved, but several months later the cyst returned.

The patient came under his observation about two years ago and an X-ray examination revealed a benign cyst of the lower end of the tibia. She was operated upon at the Polyclinic Hospital May 19, 1920. At the operation the following condition was found. The cortex was thinned out, resembling an egg shell. The cystic content was a thick yellowish fluid. The wall of the cyst was lined with a thick capsule;

its shape globular, the bony walls of the tibia being equally distended in all directions.

The operation consisted in crushing the lower end of the tibia after a thorough curettage and implanting into the cyst cavity a bone graft from the opposite tibia. There was no post-operative hemorrhage and the patient has suffered no pain since operation.

On May 5, 1921, the tendo Achillis was divided for talipes equinus, since which time the foot has been perfect.

FOREIGN BODY IN THE ABDOMEN

DR. C. F. MITCHELL reported a case, number 4382–1921, who was admitted to the Pennsylvania Hospital on October 8, 1921, complaining of a painful swelling in the left groin.

Some three weeks previous to his admission, while running for shelter, he suddenly experienced a sharp and severe pain in the left lower abdomen. This pain persisted for several following days, but apparently it was not sufficiently severe to make him give up his work as a day laborer. A week later, however, he noticed that a small, hard lump was forming in the lower left abdominal quadrant close to the left groin. He complained that this lump was becoming increasingly painful at the time of his admission. He complained of no other symptoms and there was nothing in his history which pointed to involvement of either the gastro-intestinal or genito-urinary systems.

Examination disclosed in the left lower abdomen, just above Poupart's ligament, a small oval mass, roughly three cm. in diameter. There was no change in the texture of the overlying skin; the surface of the mass was very slightly irregular and firm in consistency, apparently adherent to the anterior abdominal wall and did not seem to be connected with the underlying structures. It proved to be only slightly tender to manual examination.

The provisional diagnosis of a tumor of the anterior abdominal wall was made.

Five days later an incision about seven cm. in length was made just above, and parallel to, Poupart's ligament. It was then found that the mass was not in the abdominal wall, but evidently intraperitoneal. The peritoneum was opened inferior to this mass, which was found to be adherent above to the peritoneum and laterally to the sigmoid. It was firmly bound up in a mass of omentum, and in all proved to be about the size of a small lemon. Little difficulty was experienced in freeing this mass and delivering it from the abdominal cavity. Apart from rather dense adhesions, there was no further involvement of the surrounding gut and no evidence of a perforation.

The mass which was apparently composed largely of omental tissue was incised. It proved to have a rather firm wall of irregular scar tissue, central to which there was a small cavity with a very uneven necrotic edge, the whole structure being very evidently the result of a chronic inflammatory process. In this central cavity a small piece of wood was embedded. It was about the size of a large toothpick, with one sharp-pointed end, and measured approximately three cm. in length.

The patient made a fairly uneventful recovery from the operation, although an infection of the abdominal incision took place which delayed healing.

On subsequent questioning of the patient he was unable to recall the ingestion of the small splinter of wood.

He was discharged from the hospital three weeks after operation in good condition.

MULTIPLE FIBROMATA OF THE ILEUM CAUSING RECURRENT DOUBLE INTUSSUSCEPTION

DR. WALTER ESTELL LEE reported the case of a female, forty years of age, admitted to the West Service of the Pennsylvania Hospital August 15, 1921, with the hospital number 3223. At the time of admission she complained of recurring attacks of pain in the lower abdomen which were accompanied by vomiting. These attacks were usually associated with tenderness in the right iliac fossa. She had come to the hospital June 25, 1921 (No. 2231) complaining of similar symptoms and at that time a provisional diagnosis was made of chronic appendicitis. The symptoms continuing, it was decided to remove her appendix at the second admission, and it was found to be practically normal by the pathologist.

She obtained no relief after the appendectomy and was admitted to the hospital for the third time September 3, 1921 (No. 3664), with symptoms of acute intestinal obstruction. The abdomen at this time was not distended, there was moderate tenderness and no rigidity and distinctly visible peristalsis and loud peristaltic sounds were heard on oscultation. No abnormal masses could be detected by abdominal or vaginal examination. There was a healed scar over the right lower rectus muscle, evidently made at the previous operation. The patient was operated on at 3 A.M. under ether anæsthesia. The abdomen was opened by excising the old scar. Distended ileum slightly darker in color than normal and containing considerable fluid immediately presented. The collapsed transverse colon was next found and followed to the ileocæcal valve and then the collapsed ileum was followed for about three feet when a large mass was encountered. Upon delivering this mass of intestines, which was about eight inches in length, it was found to be an intussusception of the ileum. The intussusception was readily reduced by milking the distal portion from the proximal mass. Two intussusceptions were found; in other words, the intussusception was a double one. Thus the intussuscipiens of the first intussusception was the inner layer of the second intussusceptum. By this arrangement the layers of gut from within out were (1) the entering tube; (2) the returning layer of bowel (1 and 2 constituting the first intussusceptum); (3) the first intussuscipiens, which was also the inner layer of the second intussusceptum; (4) the returning layer of the second intussusceptum; (5) the second intussuscipiens. Covering the inner layer of the first intussusceptum were white patches which were apparently fibrinous exudates. These were very carefully palpated and did not seem to involve any tissue except the peritoneum. The bowel was

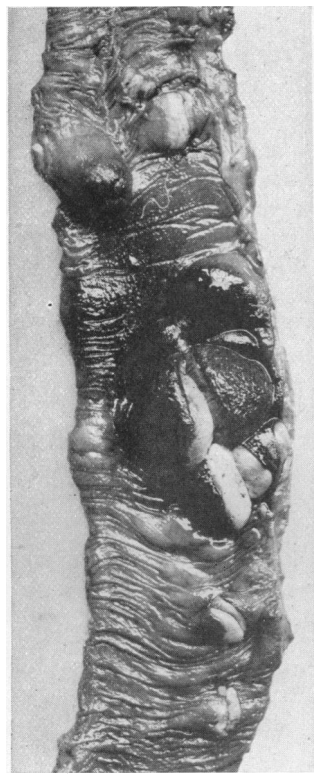

FIG. 1.—Multiple fibromata of the ileum.

in good condition and the normal color of the involved ileum rapidly returned after the application of hot saline. The amount of ileum involved in this process was about twenty-four inches. The intestines were returned to the abdominal cavity and the abdomen closed by separate layers with iodized catgut. No drainage was used. The patient was discharged twenty-one days later after an uneventful convalescence.

September 27, 1921, three days after she was discharged from the hospital, the patient returned for the fourth admission with definite symptoms of intestinal obstruction (No. 4154). Under nitrous oxide anæsthesia the old scar was excised and the abdominal cavity opened. The abdomen was practically free of adhesions and distended bowel presented as at the time of the previous operation. Upon exploring the right iliac fossa a mass of ileum was found and delivered, which proved to be another intussusception, and involved exactly the same portion of bowel as at the previous operation. It was about the same length, eight inches, and was double as before. It was easily reduced by milking the distal portion from the proximal mass, when several small white areas were seen shining through the peritoneal surface of the involved bowel. Upon palpation masses were distinctly felt corresponding to these discolored areas which apparently were new tissue involving the entire wall of the bowel. About twenty-four inches of bowel was resected and the severed ends reunited by an end-to-end anastomosis. Iodized catgut only was used. The bowel was returned to the abdomen which was closed by layer sutures of iodized catgut in the abdominal wall. The patient was discharged at the end of twenty-one days after an uneventful recovery.

Upon opening the specimen of intestine by longitudinal incision in its centre is found an area 5.5 x 3.5 cm. just visible on the serous side from which two globular masses project into the lumen, 3 and 2.5 cm. in diameter, respectively. The mucous surface of the masses was deep red. They are firm and a translucent white on cut surface. Contiguous to them are two similar elevations rising out 4 cm. above the level of the normal mucosa. At other places in the intestine are masses of similar consistency over which the mucosa is normal in appearance and freely movable. They vary from 1.0 to 2.0 cm. in greatest diameter and one of them projects into the lumen as a finger-like process 3 cm. long and 1.5 cm. in diameter.

Microscopical Examination: The tumor is a moderately cellular fibroblastic tissue with some well-matured cells, but many which are imperfectly differentiated. Many of the nuclei have dark, irregular structures which could probably be interpreted as typical karyokinetic figures. The blood supply is small and consists of capillary whose walls are composed of a single layer of endothelial cells.

Diagnosis: Malignant fibro-blastoma.

Doctor Allen reported that he had had a similar case at the Bryn Mawr Hospital. The patient was a boy, about ten years of age, with intestinal obstruction caused by intussusception in the small bowel. The intussusception was reduced and the bowel opened. There were a number of masses, some-

what like those described by Doctor Lee, growing from the bowel wall. The larger ones were excised and the bowel closed. Several months later, the boy had another intussusception with obstruction. This time several inches of small intestine were resected. The specimen showed a larger number of polypoid masses, of varying sizes, than at the first operation. The patient recovered.

THYROID TOXÆMIA

DR. HUBLEY R. OWEN recited cases, illustrating the condition of thyroid toxæmia occurring in policemen and firemen under his care. They were shown for the purpose of demonstrating the prevalence of this condition among the members of the Police and Fire Departments. The speaker stating that he had under his care cases of thyroid toxæmia in the proportion of one to every 650 men, which seemed to him to be a high percentage. The constant excitement of their occupations may be a possible etiological factor of the condition.

CASE I.—Hoseman "B," age forty-two. In 1920 had rheumatism. Also had pyorrhœa. Present condition began in March, 1921. First symptom was palpitation, followed by nervousness. In June, 1921, had badly diseased tonsils removed. Since his tonsillectomy has gained thirty-six pounds in weight and is much improved. Is being treated at the Jefferson Hospital by application of X-rays. Is now able to do active duty in the office of the Fire Marshal. The patient dated the onset of his symptoms to long and severe duty at a fire. Basal metabolism at present time, plus twenty.

CASE II.—Patrolman "S," age thirty-three. The first symptom was swelling of the thyroid gland. He noticed this in October, 1920. This was followed by marked palpitation, and then by tremors. He was admitted to the Police and Fire Ward, Philadelphia Hospital, and had tonsils removed. Since his tonsillectomy has gained ten pounds in weight, and is now doing active police duty. Basal metabolism at present time, plus two.

CASE III.—Patrolman "A," age thirty-nine. In Police Department for five years. In February, 1920, had diabetes. Loss of weight from 162 to 119 pounds. In June, 1920, first symptoms noted were nervousness and tremors, followed by enlargement of the thyroid gland. Has had no palpitation. His Wassermann was plus four. Was given specific treatment. Present weight 163 pounds. Has slight exophthalmus. No tremors at present time, and no palpitation. Is doing active duty in the Police Department.

CASE IV.—Patrolman "L," age forty-three. Served eleven years in Police Department. Had frequent attacks of tonsillitis and rheumatism. First symptoms of thyroid toxæmia started in 1919. First symptom noticed was nervousness, followed by palpitation, and enlargement right lobe of thyroid gland. He states that his nervousness began immediately following a fight which he had while making an arrest during a trolley strike. Had a complete thyroidectomy. At present time has marked exophthalmus. Palpitation and nervousness both im-

proved. He is doing active police duty. The highest basal metabolism was in this case, plus ninety.

CASE V.—Patrolman "W," age thirty-nine. Had influenza in 1919. Shortly after his attack of influenza noticed that he was losing weight. Had constant nausea, and this was followed by nervousness and palpitation, and lastly by exophthalmus. Has been treated by absolute rest, and monthly application of X-rays. Has gained eighteen pounds in weight. Still has some tremors and some palpitation. Is doing light duty. Present basal metabolism is plus twenty.

FOREIGN BODY IN RECTUM

DR. JAMES H. BALDWIN recorded a case reported to him by Dr. Horace Phillips, physician to the Eastern Penitentiary. The patient stated that he had introduced a piece of wood into the rectum to produce an evacuation of the bowels and that it had slipped from his grasp and he was unable to remove it. Digital examination showed a foreign body as high in the rectum as could be reached by the tip of the examining finger. Under ether anæsthesia the sphincter was dilated and a piece of wood, eight and three-fourths inches long, was grasped by forceps and easily withdrawn. The patient suffered no ill effects. He was about thirty-five years of age, never had any visitors, was of cleanly habits, and never gave any trouble. This is probably a case of sexual perversion, known as pederasty.

HYDROPS OF GALL-BLADDER

A second case record reported by Doctor Baldwin was of a female, age sixty, admitted to the Methodist Hospital, on the medical service of Dr. Paul Reiff, November, 1920. Her only complaint was a vague and continual discomfort in the upper abdomen and a sense of dragging and pulling in the right upper abdomen, especially on standing. A very careful study of her case was made by Doctor Reiff and a diagnosis made of gall-bladder disease with stones probably present. A number of negative X-rays were taken for gastro-intestinal and gall-bladder study. The patient was transferred to the surgical service and operated upon by the speaker December 14, 1920. On exposing the gall-bladder region the gall-bladder could neither be seen nor felt. In exploring downward to bring up the appendix a firm, irregular mass was encountered resembling a malignant growth of the ascending colon, which proved, however, to be a gall-bladder nine inches in length, five inches in circumference and tensely distended with fluid, a case of hydrops with large stones. There was a sort of meso-gall-bladder about four inches wide, and when the gall-bladder was brought out of the incision it stood five inches above the surrounding skin. A cholecystectomy was very easily done and the patient made a quick and uneventful recovery and has remained well since. It was interesting to find out why these large stones did not show in the X-ray pictures. Was the composition of the stones at fault or was the failure due to the fluid in the gall-bladder? It is claimed that stones will not show if there is much fluid, as there was in this case. The radiographic research showed that

it was not the composition of the stones. Therefore it is believed the failure of the stones to show while in the patient was due to the fluid tensely distending the gall-bladder.

HERNIA OF FEMALE REPRODUCTIVE ORGANS INTO THE INGUINAL CANAL

DR. HENRY P. BROWN prefaced the report of an instance of the above complication by remarking that hernias of the ovary or ovary and tube, or ovary, tube and uterus in the inguinal canal, present a rather unusual and interesting variation from the usual variety of inguinal hernia. Not infrequently one finds an ovary situated in this region, its presence here being due to a congenital defect in development.

Cranwell,[1] quoting Herwig, states that when the Wolffian bodies commence to atrophy during the third month of fetal life, the ovaries descend from the lumbar region into the false pelvis, being in contact with the psoas muscle. It is probable that the inguinal ligament of the Wolffian body acts on them, as Hunter's gubernaculum, the gubernaculum testis, does on the testicle. The later position in the descent of the ovaries differs from that in the descent of the testicles in that instead of being arrested in the inguinal region, the ovaries descend normally into the true pelvis.

In certain exceptional cases the ovaries are able to comport themselves as the testicles, coming to lie in the inguinal region opposite the canal of Nuck. Sometimes they stop here, but they are also able to engage themselves within the abdominal wall, traversing the inguinal canal. The ovary is thus able, in imitating the testicle in its descent, to enter the inguinal canal and also engage the uterus, especially if the latter is bicornuate due to an abnormality of development.

In most cases only the ovary is engaged, but several instances have been reported in which a Fallopian tube and the uterus have accompanied it.

Doctor Jopson[2] reported such a case and gave a very good review of the literature up to that time. Royster[3] has recently reported another, reviewing the literature up to last year.

Most of the recorded instances occurred in women who had been pregnant one or more times, and most writers agree that this is an important factor in producing the condition. Some of the cases, however, were in women who had never borne children.

A severe sudden abdominal strain is an important predisposing factor and was mentioned as having occurred in several of the cases.

In the case reported the uterus, both tubes, and ovaries were contained in the sac.

An apparently healthy, normally developed colored child of five months was first seen in the dispensary of the Children's Hospital on Doctor Jopson's service on June 4, 1921, to whom the speaker is indebted for the privilege of operating upon it. She presented swelling in the region of the left labia about the size of a small almond, which her mother said had been present since birth. The mother stated that the

birth had been normal and the swelling had not varied in size, was unaffected by the child crying and had never disappeared.

Examination showed a rather firm, somewhat movable, but irreducible mass in the region of the external ring, not tender on pressure, constant in size and not transmitting any impulse when the child cried. The child was apparently otherwise normal in every respect. A tentative diagnosis of hernia of the left ovary was made.

Early in the morning on the day set for operation, the child had a severe crying spell, and on examination the nurse noticed that the mass in the inguinal region had become very much larger. It was thought that a knuckle of bowel had become forced into the sac.

At operation, under ether anæsthesia, the usual Bassini incision was made, opening the inguinal canal and exposing a well-developed sac which extended into the labia. The sac was opened and found to contain the uterus, both tubes and both ovaries, apparently normally developed for a child of that age.

The hernia was of the indirect type and its contents were easily reduced after relieving a moderate constriction at the internal ring. An area on the inner wall of the sac was very suggestive as being part of the urinary bladder and the sac was therefore not completely removed. The canal was closed after the Ferguson method and the child made an uneventful recovery.

Undoubtedly the strain incident to the crying spell was the factor which caused the uterus and its appendages to be forced into the hernia sac, this being in accord with the strain mentioned in most of the cases.

It was not absolutely certain that part of the bladder was present in the sac, especially as the hernia was of the indirect type, but from the appearance of that part of the sac, the slight difference in color, increased thickness and the sensation on palpation, it was at least very suggestive.

Doctor Jopson, in discussing the subject of hernia of the uterus, stated that in 1904 he had made an exhaustive study of this subject and compiled from the literature what he believed at that time to be a complete list of the cases in which the uterus had been observed to be present in the sac of an inguinal or femoral hernia. The ventral forms, which are the most frequent and which result from separation of the rectus muscle during pregnancy, were not considered. The earliest case of hernia of the uterus was observed by Nicholas Pol in 1531. There had been twenty-one instances reported up to 1904, his case being the twenty-second. Of these nine occurred in association with pregnancy. Pregnancy may occur in the uterus before or after it becomes herniated. There were also two undoubted cases of femoral hernia of the non-pregnant uterus. In many of the cases some malformation or lack of development of the genital organs was present. Eight cases of hernia of the non-pregnant uterus had been operated upon previously. In the more youthful cases the contents of the sac could usually be reduced. Since this report was made several articles on the subject had appeared, including more or less comprehensive ones by Cranwell, of Buenos Aires,

in 1908, and Sutton in 1909. Cranwell collected forty-five cases and Sutton fifty cases. The speaker had either overlooked, or was unable to obtain at that time, Oge's paper published as a thesis in Paris in 1900. Both it and Cranwell's and Sutton's papers are quoted in the most recent article which has appeared on the subject, namely that of H. A. Royster (1920). Royster, and Sutton and Upton, whom he quotes, dwell on the frequency of congenital malformations in associations with this hernia. In very few cases is the diagnosis possible before operation. It might be suspected if a hernia was found in association with atresia of the vagina or other perceptible external malformations or lack of development, and in young female children especially. Hernias of unusual type should be studied with the view to the detection of this malformation or of what is more common, hernia of the ovary alone.

BIBLIOGRAPHY

[1] Cranwell: Rev. de Gynecol. Paris, 1908, vol. xi, p. 777.
[2] Jopson: ANNALS OF SURGERY, July, 1904, p. 99.
[3] Royster: South. Med. Jour., April, 1920, p. 275.

INTRAPERITONEAL RUPTURE OF THE BLADDER

DR. T. TURNER THOMAS read a paper with the above title.

TUBERCULOSIS OF ELBOW CURED BY X-RAY

DR. G. M. DORRANCE showed a man, age forty, with a history of tuberculosis of the left knee and hip-joint that had been cured in childhood.

Patient was under the speaker's care for one year previous to the administration of X-ray treatment. When first seen he had tuberculosis of the right elbow-joint with numerous sinuses leading down to diseased bone. The X-ray plates showed marked destruction of the lower end of the humerus and entire involvement of the joint. On account of scar tissue from former operations, an excision of the joint was impossible. Removal of bone and curetting of the sinuses was performed several times. Bier's hyperæmia was used. X-ray treatments were given first at three-day intervals and later at seven-day intervals. The sinuses rapidly closed and have not reopened. It is shown as an adjunct to the usual surgical procedures used in tuberculosis of joints.

AVULSION OF PALM

A second case, presented by Doctor Dorrance, was of avulsion of the skin and subcutaneous tissue of the palm treated by abdominal pedicle graft occurring in a man, age twenty, admitted with a history of crush of the hand and loss of the skin and subcutaneous tissue of the palm.

Examination showed the skin and flexor tendons exposed and arteries pulsating. The skin and subcutaneous tissues were lost from one inch below the flexor crease at the wrist-joint to one inch above the metacarpal phalangeal crease and extending almost out to the lateral margins of the

palm. The wound was treated for four days with dichloramin-T and then an abdominal flap of skin was reflected up and sutured to the edge of the palm. On the tenth day, the flap was partially divided from its abdominal connection. Each day thereafter more was divided until the pedicle was completely divided. This skin has gradually contracted from the sides towards the centre so that now the graft is about two-thirds as large as it was when the sutures were removed. Twelve weeks have elapsed since the operation and sensation is gradually returning in the graft.

SKIN TENSION BUTTONS

DOCTOR DORRANCE presented the above apparatus with the following description: The value of these buttons is that they have two points of contact with an intervening concave surface that gives some support but allows sufficient blood to enter to prevent necrosis. The ends and sides are slightly everted to limit as much as possible the so-called digging in of the buttons.

The slot at the end allows the mattress suture to be applied without the necessity of attempting to pass the needle and suture through an eye at either end. When the sutures are all inserted and ready to tie, the buttons are put in place. They may be used as an ordinary mattress or an end mattress.

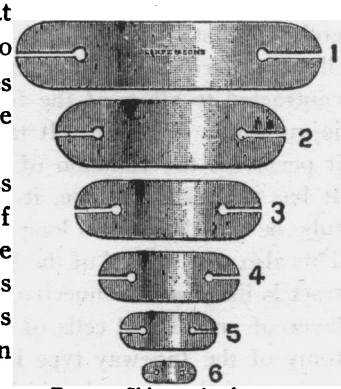

FIG. 2.—Skin tension buttons.