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GENERAL SURGERY.

I. Pental. Dr. E. Weber (Halle). Pental (C H., C H., C H., or pure tertiary amylen) was administered in more than 200 operations in the University clinic at Halle. A moderate state of excitement was observed only in a few cases, these being chlorotic and hysterical; extreme excitement occurring only in alcoholic subjects. Sometimes, in addition to the slight excitement tetanic spasms of the arms and legs occurred. There were no unpleasant after-effects nor was any important influence upon the heart or pulse noticeable, the corneal reflexes ceased late in the administration. From 5 to 10 grammes inhaled (the apparatus used being a modification of Junkers) sufficed to procure in most instances, anaesthesia in from 2 to 3 minutes, which state, however, lasted but a short time. The operative procedures under pental anaesthesia were of a minor character such as extraction of teeth, incision of bubos, removal of condylomata etc. For extending fixed joints pental did not suffice as the anaesthesia was not sufficiently deep to relax all the muscles involved.

Brewer of Vienna found resuscitation necessary in 1 out of 100 cases of anaesthesia from pental.—Münchener Med. Wochenschrift, 1892. No. 7.

II. An Experimental Contribution to the question of the Treatment of Anthrax. By Dr. F. Nisson. Nisson attempts to ascertain how far, in case of anthrax of the skin, a procedure is justified which radically attacks the primary focus of infection by means of the knife or Paquelin’s cautery. N. inoculated, at the end of one extremity or at the point of the ear, blood of mice infected with anthrax and performed some hours later high amputation of the leg or of the whole external ear. He found that such an operation,
performed 2 or 3 hours after the inoculation did not have any influence on the course of the infection. The regularity and relative slowness that characterized the passage of the bacilli into the body, as was shown by the above mentioned experiments, pointed to the lymph channels as the probable course followed by the anthrax bacilli. The author, therefore, several hours after inoculation of the anthrax germ in the end of an extremity, dissected out the next adjacent lymphatic glands and inoculated them into white mice. Death of the mice took place and in this way it was demonstrated that anthrax could be inoculated from an animal 3 hours after the reception of the disease. The author recommends, on the basis of these observations, an expectant and not operative treatment of anthrax of the skin for the reason that it is not possible to remove all the anthrax germs from the body by dissecting out the place of inoculation. The course of the disease varies greatly in different individuals. Finally N's experiments attempted to determine whether or not by ligating an extremity the peripherally inoculated bacilli can be kept back at the place of inoculation. He inoculated and simultaneously established, above the inoculated point, a ligature upon the limb. The rubber tubing employed, after 3 to 4 hours, was removed and the actual cautery applied to the infected wound. None of the animals thus experimented upon showed any symptoms of the disease. These animals were subsequently inoculated and found to be susceptible to the disease. The circular ligature of the part and cauterization, therefore, thus far have proven to be the most successful means of coping with the disease.—Deutsch. Med. Wochenschrift, 1892, No. 53, p 1425.

III. Treatment of Lupus of the Skin. By Dr. W. Kramer. K. advocates excision of lupus of the skin. He used this radical method ten times in the last two years, and in not a single case was recurrence observed, either at the place of operation or in its neighborhood. The patients were suffering from lupus of the face or neck, ranging from the size of a twenty-five cent piece to that of the palm, the outlying portions being raised as well. In all the cases the diseased portion was circumcised, the knife passing one centimetre from its limits and deeply to or into the muscles, bone or
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cartilage, the lupus, together with the subcutaneous tissue, being completely extirpated, after careful arrest of hemorrhage by compression or ligature. In four cases the wound was sutured; in three instances, where suturing, on account of excessive tension of the wound edges, was but partly practicable, secondary suturing was practiced. Thiersch’s method of skin transplanting was employed, and in one case a plastic operation was performed. The course of healing was aseptic and required from one to four weeks. The cosmetic result was very satisfactory. K. recommends the employment of extirpation as early as possible, but he claims that even in cases of advanced disease lupus excision may be followed by relatively good cosmetic results. The methods of transplantation, implantation and plastic method now employed have contributed largely to the success obtained in this class of cases at the present time.—Centbl. f. Chir., 1892, No. 8.

GEORGE RYERSON FOWLER (Brooklyn).

SURGICAL ANATOMY.

1. The Ileo-Cœcal Appendix. By Dr. Clado (Paris). As a result of his researches the author concludes that the appendix in man is a portion of the atrophied cœcum; it does not possess valves, and the meso-appendix which binds it to the cœcum and the small intestine descend usually to its point; the peritoneal fold is sometimes filled with fat. In the female the meso-appendix has a prolongation which is lost in the broad ligament (appendiculo-ovarian ligament); it encloses the lymphatics, which establish a communication between the appendix and the ovary.

Clado found a ganglion in the angle made by the appendix and the cœcum with the small intestine; it is constant and of the size of a bean. Its hypertrophy has been demonstrated in typhoid fever, tuberculosis and appendicitis. The lymphatics of the appendix are to be found in the appendicular ganglion.

The appendix is on a level with the lesser pelvis, sometimes in the iliac fossa; in one out of ten cases it is folded above on the posterior surface of the cœcum.
NERVOUS AND VASCULAR SYSTEMS.

The structure of the appendix is similar to that of the large intestine; from without inwards are to be found the peritoneal investment, long, smooth, muscular fibres, circular fibres, then a tolerably thick layer of cellular tissue with arterial openings and lymphatic depressions, then a mucous coat, doubled with a thin "muscularis mucosae," and lined with cylindrical epithelium. The appendix is composed of glandular tissue which is found in spots of flat or round follicles.

Clado has had opportunity to study the appendix from the third month of intra-uterine life, in a state of health and immediately after death. He has invariably found in the appendix the common "bacterium coli." He has likewise met with it in three cases of appendicitis. This affection is, according to our author, an inflammation of the glands leading up to an intra-appendicular abscess. This is possibly the outcome of a microbial migration demonstrated in one case through the wall or a perforation.

The frequency of perforation at the extremity of the appendix is explained by a difference of structure at this point. When the appendix folded under the cecum is diseased by abscess the lesion can be taken for a typhilitis or a perityphilitis. Finally the lymphatics of the appendiculo-ovarian ligament favor the propagation of inflammations of the large ligament to the iliac fossa.

Clado regards the appendix in the light of a gland rather than as an organ of absorption. Retterer, who has made as many researches on this subject as Clado, likens the appendix to a tonsil.—Revue de Chirurgie, 1892, March.

GEORGE RYERSON FOWLER (Brooklyn).

NERVOUS AND VASCULAR SYSTEMS.

I. Resection of the Obturator Nerve for the Relief of Contractures of Central Origin. By Dr. CARL LAUENSTEIN (Hamburg). L. details the case of a patient suffering from chronic myelitis. In addition to a severe cystitis, a contractured condition of the adductors of the thigh was the occasion of severe suffering. The knees were forced together so powerfully that it was found
almost impossible to separate the thighs. As but slight or no hope of the recovery from the myelitis existed, L. sought to relieve the patient of her sufferings resulting from the contracture of the adductors by a resection of both obturator nerves. The operation was entirely successful in fulfilling its object. Besides relieving the pressure of the knees upon each other, the separation of the thighs permitted proper treatment by irrigation, etc., of the bladder affection.

The following method of procedure is recommended: A longitudinal incision is made parallel with and to the inner side of the trunk of the saphenous vein, upon the anterior surface of the thigh, extending from the pubic tubercle downwards. The skin, cellular tissues and fascia being separated the external edge of the long adductor is brought into view and identified by its thick belly. On the outer side of the long adductor the pectineus is observed, passing in obliquely from above and toward the median line downwards and outwards. Separation of the pectineus in the direction of its fibres reveals the obturator muscle, and under the thin fascia of the latter the fan like diverging branches of the obturator nerve, passing from above and outwards in a direction downwards and inwards, almost at right angles to the course of the pectineus fibres, are found. A blunt retractor, deeply placed, making strong traction upon the external edge of the wound will enable the operator to identify the trunk of the nerve, which may be grasped and secured by means of a silk ligature. As much of the nerve as may be desired may now be removed by means of the scissors. The accompanying vessels can be protected without difficulty while the nerve is being isolated.—Centbl. f. Chirg., 1892, Vol. xix., No. 2.

HEAD AND NECK.

I. Lumbar puncture for relief of Hydrocephalus. By Dr. Quincke. Q. performed puncture of the subarachnoid space in the lumbar region in ten cases, histories of nine of which are given. The operation was suggested by the possible existence of increased pressure of fluid in the cerebro-spinal cavity. The height of pressure, in cases of children operated upon in this manner, was from 70 to 470
millimeters of water; in adults from 150 to 680 millimetres. The normal pressure in adults is not known; in children 70 millimetres may be considered not excessive, physiologically.

The absolute height of pressure did not correspond to the gravity of the symptoms. The rapidity of the increase and the condition of the heart likewise play an important part; in case of powerful heart action even a greater pressure will not interfere greatly with the circulation in the brain. The quality of the fluid removed was usually normal; sometimes the percentage of albumen was somewhat increased, while the quantity of fluid varied in adults from 20 to 100 cubic centimetres, and in children from 2 to 66. The results are as follows: One case was cured; in two others, the results was probably due to the other measures employed; in three cases temporary improvement was observed; in four cases the operation evidently exerted no influence. The indication for lumbar puncture cannot as yet be definitely stated, though, generally speaking, the operation is indicated when the increase of pressure becomes alarming and, in case of chronic exudation, in order to bring about an alteration in the conditions of resorption. This result may be expected only in the minority of cases. Unpleasant accidents did not occur in any of Q.'s ten cases. The puncture is made in the third or fourth intercostal space of the lumbar portion of the vertebral column: in children the intercostal spaces are relatively larger. In adults the spinal processes lose their horizontal direction and assume a vertical direction, thereby increasing the difficulties of puncture. The incision is made from 5 to 10 millimetres from the median line; the needle is introduced in a slanting direction, the point reaching the region of the dura in the median line. In children the needle passes 2 centimetres deep; in adults from 4 to 6.

The canula is connected with a glass tube by means of rubber tubing in order to ascertain the exact height of pressure.—Berlin klin. Wochenschrift, 1891, Nos. 38 and 39.

George Ryerson Fowler (Brooklyn).

II. Trephining for Epilepsy. By Dr. P. Sodenbaum. A young man, 19 years of age, was struck when 5 years of age by a falling tree. When 8 years of age developed vertigo and finally fits of
unconsciousness of two minutes duration. Once had a typical epileptic seizure. Operation November 18, 1890. A depression extended from a point 6.5 cm. above the left mastoid process 5.5 cm. upward. It varied in width from 5 cm. at its lower part to 3 cm. at its upper portion, and no bone could be felt. Pulsations isochronous with the heart were present. Two incisions through the soft parts were made. The pia mater was oedematous; the cerebral substance was apparently sound. Two incisions were made into the latter. Healing per primam. In three days following the operation he had seven attacks of typical epilepsy, but later was free from both typical epilepsy and petit mal. He had one fit in August and one in September.—Centralblat für Nervenheilk., September, 1892.

SAMUEL LLOYD (New York.)

III. The Treatment of Cicatrical Stenoses of the Oesophagus. By Dr. Willy Meyer (New York). The author after detailing two cases, and discussing at length the various phases of the subject, submits the following conclusions:

1. After swallowing acids, etc., sounding should be begun as soon as it can be made out that the internal wounds have healed, certainly not later than two to four weeks after the accident. This prophylactic treatment has to be continued at regular intervals for a long period—if necessary, for life. Gastrostomy can be primarily performed for this purpose (Maydl, von Hacker).

2. If a stricture of the oesophagus has developed and is impermeable from the mouth, the patient should be submitted to an operation as early as possible. No forcible dilatation or boring with the sound should be permitted. If the latter is done, the formation of a false passage is favored. The oesophagus has thus often been perforated.

3. External oesophagotomy for the establishment of a temporary fistula in the neck (oesophagostomy) will be found useful and sufficient in many of these cases, especially in children. The stricture can be generally passed quite easily from this opening. A tube can be left in situ without the annoyances which are caused by passing it through the nose and pharynx. This operation is always indicated if, besides an impermeable stricture in the lower portion of the oesophagus or
behind the bifurcation of the trachea, a second (or third) one is present at a level with, or not far below, the cricoid cartilage.

4. In grown patients and those who are emaciated and require immediate forcible nutrition, primary gastrostomy, with subsequent retrograde sounding, may be preferable.

5. If the stricture has been successfully stretched, and if the same sound which passed from the wound in the neck can also be pushed down through the mouth, the fistula has to be closed. If gastrostomy had been performed, this second operation generally requires laparotomy and separate suture of stomach and abdominal wound.

6. In a number of cases there is a limit to stretching and divulsion, or the repeatedly widened stricture rapidly recontracts. Then internal oesophagotomy is indicated as the only means to cure the patient.

7. Internal oesophagotomy, if performed under these circumstances, is a very dangerous operation, especially on account of our present lack of means to render the operating field free of infectious material.

8. A thorough disinfection of the intra-thoracic portion of the oesophagus seems feasible by first adding gastrostomy to external oesophagotomy, and vice versa. Then the operating field and the stomach can be cleansed by antiseptic irrigation before and after the operation. Through temporary antiseptic tamponade of the cardiac portion of the oesophagus and of that between the fistula in the neck and pharynx we may hope to guard against contamination of the wound.

9. From a wound in the neck internal oesophagotomy can be carried out in the same way and with the same instruments as used for dividing strictures of the anterior urethra from within. The division should be made in a retrograde way only, the knife having been first passed beyond the stricture. A guide pushed up from the gastric fistula will help to accomplish this, even in obstinate cases. It may become necessary, especially in adults, to have an instrument of a special length, and sometimes also curve, constructed for this purpose.

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ABDOMEN.

I. On Tumors Caused by Effusions into the Lesser Peritoneal Cavity Simulating Cysts of the Pancreas. By JORDAN LLOYD, F. R. C. S. (Birmingham). The author details two cases of injury to the pancreas followed by accumulations of fluid in the lesser peritoneal cavity and the formation of a tumor in the left hypochondriac region, extending toward the umbilicus. Postmortem examination in one case, and operative exploration in the other demonstrated that in both the tumor was due to an accumulation of fluid in the lesser peritoneal cavity. He then reviews the literature of pancreatic cysts of traumatic origin, and concludes that in these cases the diagnosis of pancreatic cyst has been made on insufficient evidence, and that all the published cases are in reality cases of fluid effusions into the lesser peritoneal sac, the result of injury to the underlying pancreas, and not cysts of the pancreas in the proper meaning of the term. He calls attention to the fact that pathological distension of the lesser peritoneum gives rise to a tumor in the left hypochondriac, epigastric, and umbilical regions of a somewhat characteristic shape, but which appears to vary from time to time in form and size according to the condition of the overlying stomach, for when the viscus is full of liquid contents it increases the area of the tumor's dulness, whilst it makes its outline less definable by palpation, and if the stomach is distended with gas the dull area becomes resonant, and apparently the tumor may disappear altogether. The colon always lies below the tumor, and never in front of or above it, as is the case in kidney enlargements. The stomach is most readily distended with gas by giving a few grains of carbonate of soda and immediately afterwards a little tartaric acid, and the colon is best distended with water by injection per rectum. The downward limits of this space vary in individuals according to the extent to which the two layers of the great omentum remain separate, and in such cases the sac may distend so as to occupy the loins or even to fill the whole abdominal cavity.

In these cases pain is an uncertain symptom. It has usually been paroxysmal in character, coming on at irregular intervals and continuing for variable periods. It is referred to the epigastrium, strikes
through to the back, and is sometimes aggravated by the taking of food. Vomiting is usually met with. It varies very much as regards frequency and its relation to meals—it may be almost continuous for a long period, or it may come on at irregular intervals only. Emaciation is a conspicuous feature, and is more than the vomiting is sufficient to explain. Anæmia has been marked in each of the author’s cases. It disappeared with surprising rapidity after operation in the patient who recovered. The dullness over the left lower ribs posteriorly is an interesting sign. The cavity could easily be tapped by a needle introduced from behind, and might give rise to the belief that the fluid was in the pleural cavity. The heart may be lifted up by the underlying tumor, so that the apex beat is raised as high as the fourth intercostal space, as was seen in his second case, and also in that recorded by Senn. This displacement might easily be wrongly attributed to the presence of fluid in the left pleura. Cardiac pulsation, too, may be transmitted to the abdominal swelling. In both of the author’s cases the temperatures were subnormal throughout, although in Case i post-mortem examination showed that some amount of general peritonitis was present.

In neither of the cases did the urine at any time contain sugar, but in both a little albumen and phosphates were present.

In closing this paper Mr. Lloyd submits the following conclusions:

1. That contusions of the upper part of the abdomen may be followed by the development of a tumor in the epigastric, umbilical, and left hypochondriac regions.

2. That such tumors may be due to fluid accumulations in the lesser peritoneal cavity.

3. That when the contents of such tumors are found to have the property of rapidly converting starch into sugar, we may assume that the pancreas has been injured.

4. That many such tumors have been regarded as true retention "cysts of the pancreas," and that this opinion has been formed upon insufficient evidence.

5. That the diagnosis of distention of the lesser peritoneal cavity before operation can usually be made by the characteristic shape of the swelling.
6. That early median abdominal incision and drainage is the safe and proper treatment.—*British Med. Journ.*, Nov. 12, 1892.

**II. Serous Cysts of the Mesentery.** By Dr. Terillon (Paris). The difficulties of diagnosis in cases of mesenteric cysts have been considered, heretofore, almost insurmountable. T. on the basis of three observations, in this class of cases, gives the following diagnostic points.

Serous cysts are generally located in the median or lateral portion of the abdomen and are not connected with the organs which, as a rule, form the place of origin for cysts, *i.e.*, liver, kidney and ovary: in case of a very large cyst, however, the absence of such a connection is difficult of demonstration. Anteriorly or on the sides of the tumor an adhesion is found with a loop of bowel that cannot be detached: percussion, therefore, will frequently elicit a superficial tympanitic sound. The cysts can sometimes be detached, especially in a transverse direction. Their fluctuation is well marked even in cases of great tension. Their size varies. As soon as they are clinically demonstrated their contents average from three to six litres of slightly colored serum. The very excessive connections of serous cysts of the mesentery, the etiology of which the author declares to be very obscure, renders their enucleation, as a rule, impossible or at least extremely dangerous. Simple puncturing through the abdominal walls involves danger of injury to the bowel and is often followed by recurrence. T., therefore, recommends laparotomy without previous puncture, removal of the sac as far as possible, suturing of the edges of the wound of the sac to the abdominal wound, and drainage or tampons. Several months' elapse before the resulting fistula is finally closed.

In three cases occurring in females of 18, 22 and 23 years of age, respectively, T. made the diagnosis upon the basis of the above described characteristic symptoms. Recovery followed laparotomy and suture of the cyst wall as suggested in the communication.—*Bull. et mém. de la soc. de Chirg. de Paris*, t. XVII, p. 375.
III. Treatment of Wounds of the Intestine. By Dr. CHAPUT. Ch. condemns, in a most unqualified manner, the expectant treatment of wounds of the intestine, the mortality of which is from 50 to 60 per cent. The hitherto unpromising results obtained by laparotomy are attributed to either a late application of this procedure, the overlooking of perforations or imperfect suturing. In dogs, invariable success followed his efforts, in the repair of wounds artificially produced, by means of laparotomy.

Senn's method of ascertaining whether or not perforation exists by forcing hydrogen gas into the bowel through the anus and identifying the presence of the latter at the abdominal wound by lighting it as it escapes, is rejected by Ch., on the ground that considerable force is necessary to drive the gas beyond the ileo-cæcal valve, and when this is accomplished the sudden influx of the gas from the distended colon will convert incomplete perforations into perforating wounds, or separate commencing adhesions. Exploratory laparotomy is preferred to Senn's diagnostic method, each portion of intestine being carefully and systematically gone over, from the ileo-cæcal valve to the duodenum; the stomach and larger intestine being examined last. Each perforation is grasped by means of clamp forceps as soon as it is discovered; suturing of all the perforations is done afterwards.

In cleaning the peritoneum dry sterilized sponges are used, and all antiseptic fluids dispensed with.

In case of excessive hemorrhage, Ch. follows Senn's proposal and makes digital compression of the aorta until the bleeding points are identified and secured.

In closing intestinal wounds amounting to more than one-fourth of the circumference of the bowel Ch. recommends his methods of transplantation of intestine ("greffe intestinal"). This consists essentially in closing the perforation with a healthy loop of intestine. For this purpose a point in the intestinal track is selected fifteen to twenty centimetre above or below the perforation, bringing this in contact with the wounded intestine and securing the two together by a double row of sutures. In case of double perforation a double transplantation may be employed and resection of the injured bowel be avoided. Should two perforations occur close beside each other it is
better to form one large opening by removing the portion lying between the openings, and transplant as before.

The method of transplantation here suggested is based upon an experimental study in eighteen animals. In all eighteen cases the transplantation was successful.—*Gaz. des hôpitaux*, 1892, No. 138.

**IV. Tuberculous Strictures of the Bowels and Their Treatment.** By Dr. F. König. König observed and operated upon five cases of tuberculous stricture of the bowel, a disease, the clinical appearances of which are so typical as to present a picture with striking characteristics. The patients' ages varied from twenty to forty years, only exceeding this in one case. In this a woman of fifty-two years. The patient had suffered from gastric symptoms which developed slowly; pallor and emaciation appearing simultaneously. Later there occurred attacks of colicky pains pointing without doubt to stricture of the bowel. With varying frequency, several times a day and again less often, the abdomen became the site of painful distention; loops of bowel with serpentine movements and a splashing noise is noticed upon succussion. The attack terminates by the contents of the bowel being forced through the stricture; in the meantime a characteristic noise as if a fluid is pressed out of a syringe becomes audible upon auscultation. Immediately the abdomen flattens and the patient is relieved for a time. Operation discloses conditions corresponding to the picture of the disease. The stricture of the bowel originating from the tuberculous ulcer of the bowel is found with considerable lessening of the lumen from cicatrization. Above this point the bowel is greatly dilated with hypertrophy of the muscular coat; below, the bowel is contracted or rather atrophied. Typical circular resection of bowel for the removal of the obstruction is indicated as well as removal of the affected mesenteric glands. This procedure is justified by the fact that, as a rule, the tuberculous affection of the bowel in these cases is circumscribed and localized and, as shown by the cicatrization, has an intrinsic tendency to recovery. The diagnosis of a stricture due to tuberculosis will sometimes be suggested by other existing tuberculous affections. Two out of König's five patients died soon after the operation; one from asthenia and one
from peritonitis due to failure of the suture of the bowel; one of three patients who recovered was in good health two years afterwards; the two others were operated upon more recently. These, likewise, had gained very much in general health and weight.—Deutsche Zeitschrift f. Chirg., Bd. XXXIV., p. 65.

V. Primary Sarcoma of the Small Intestine. By Prof. Dr. MADELUNG (Rostock). Sarcoma attacking primarily the walls of the stomach or intestine is comparatively a very rare disease. This is particularly true of primary sarcoma of the small intestine, heretofore scarcely mentioned in the literature of malignant disease. The development of the tumor in this connection is peculiar, and this, together with the appearances presented, differ greatly from those presented by other neoplasms of the bowel. The author, on the basis of three cases occurring under his own observation, and of eleven cases collected from various sources, presents the following sharp characterization of the disease:

Sarcoma of the small intestine belongs, in most instances, to the round-cell variety, with small cells, and rarely to the spindle-cell type of the disease. They, in all probability have their origin in the sub-mucous layer, and spread in this by preference. The muscular structure is the next to be invaded, and later the mucous membrane; the peritoneum is very rarely attacked, even in advanced cases. As a result of this peculiarity of the method of invasion of the muscular structure of the bowel, the latter becomes paralyzed, and the diseased portion is dilated so as to remind one of an aneurism. Narrowing of the lumen does not occur, even if the mucous membrane becomes extensively diseased. In consequence of the dilatation excessively large tumors are formed early.

Should the tumor force its way through the serous covering, large and irregular intra-peritoneal abscesses with fecal matter as a portion of their contents arise. Metastatic formations in the lymphatic glands of the omentum and mesentery, as well as in the liver and kidneys, occur early. In one instance the small intestine was attacked in two separate places.
The etiology of the disease was not suggested by anything in the histories. In one instance a severe blow upon the abdomen preceded the development of the disease.

In only a single instance among the fourteen was the disease opened in the female. The majority of cases occurred during the third and fourth decade of life; in only three cases the fortieth year had been passed.

A notable characteristic is the slight local disturbance compared with the rapid progress of the general disease. General loss of strength and weight, and other evidences of considerable impairment of the general health were observed before slight gastric disturbances and local pain called attention to the abdomen. Persistent constipation even is not a feature of the disease unless brought about by some special complication; in this respect there is apt to be an alternation between the two conditions of constipation and diarrhoea.

Another peculiarity of these growths is the fact that they remain more or less distinctly circumscribed and mobile for a comparatively long time. They grow with extreme rapidity, are generally of a hard consistency, although sometimes the centre seems soft and almost fluctuating.

The duration of the affection is usually very short. The shortest duration in M.'s series was but a fortnight; the longest period was twenty-one months; an average of nine months was observed.

Death generally takes place as the result of exhaustion, particularly in cases of intra-peritoneal abscess. One patient died from invagination. The portion of intestine attacked by sarcoma became invaginated, afterward gangrenous, and was finally passed per rectum. In one instance the bowel became rotated upon its own axis at the site of the disease.

The diagnosis of the affection during life differentiating it from other forms of abdominal tumor may be made upon the basis of the above mentioned characteristics. Exploratory laparotomy will serve to clear up the matter. In making the differential diagnosis, the time of life of development, the local symptoms (large size of tumor, etc.), the rapidly developed cachexia, and the absence of stenosis. Perforation and formation of fecal abscesses having occurred, the ap-
ABDOMEN.

pearances, both local and general, resemble those of certain cases of tuberculosis of the peritoneum.

Operation in this class of cases is, as a rule, out of the question. The early formation of metastases forbid interference. Of two patients operated upon by Nicolaysen and Mikulicz, the patients survived the operation. The only record to be found concerning the after histories of these patients consists of the statement that the first was living on the twenty-fifth day after the operation, and the other that he was alive on the fifteenth day. M. operated upon two cases. In one case the procedure advanced no further than an exploratory laparotomy, from which the patient died nine days subsequently. The second case died twenty-four hours following an extirpation of the tumor. The autopsy revealed extensive and advanced metastatic deposits in the liver and omentum.—Centralblatt f. Chirg., July, 1892.

VI. Tuberculosis of Herniae. By Prof. Dr. BRUNS (Tuebingen). Tuberculosis is the rarest pathological change of a hernia. B. adds one new case to the twelve already published. Of these thirteen the hernial sac was attacked ten times and in seven it was alone the seat of the disease. This, together with other conclusions, substantiate the belief that "tuberculosis of herniae may occur as a primary disease; generally, however, it is associated with general peritoneal tuberculosis.—Beiträge zur klin. Chirg., Bd. IX., p. 209.

VII. Treatment of Strangulated Herniae when Gangrene is Imminent. By Dr. THORNHILD ROVSING (Copenhagen). The method, described and recommended almost simultaneously by Graefe and the author, consists in pulling forward the suspicious loop of bowel (having broken up the adhesions) and suturing it to the abdominal wall. The sutures should be of catgut or silk and only include the serous membrane or layer of the bowels. Then dress the bowel with sterilized gauze, wait developments; if the loop return to its normal condition, remove the suture, replace the loop and the interrupted herniotomy is completed. In case, however, gangrene occurs either resect the bowel or establish an artificial anus. The reason that this simple method was not recommended and practiced
earlier was in consequence probably of the fear that the very act of
dragging out the bowel might favor the development of gangrene.
The two cases of Rovsing and Graefe prove that even very suspicious
loops incarcerated for several days may recover under this treatment.
—Centralblatt f. Chirg., 1892, July 16.

VIII. Treatment of Gangrenous Herniæ. By Dr. PoulSEN (Copenhagen). P. long ago advocated the establishment of
an artificial anus instead of resection in case of gangrenous herniæ. He still adheres to this opinion knowing that resection was gener-
ally followed by better results, but he claims that the establishment of
an artificial anus will yield better results if his own method of pro-
cedure be adopted. The technique is as follows: after opening and
irrigating the hernial sac, enlarge the incision in the abdominal wall
two to three centimetres; then draw out the bowel and suture (through
the serous coat only) it to the abdominal wall, so that from five
to fifteen centimetres of healthy bowel be exposed. Should perfora-
tion occur, close this exposed part with Péan’s forceps and wrap in
iodoform gauze. After one or two days the loop is destroyed by the
thermo-cautery, the enterotome used and enteroplasty performed. P. treated five cases of gangrenous herniæ by the above method. Of
these three were cured and two were fatal.—Centralblatt f. Chirg.,
1892, No. 30.

IX. Treatment of Strangulated Gangrenous Hernia.
By Dr. Jules Marin (Paris). Primary resection and suture is adva-
cated very decidedly, in the treatment of gangrenous hernia and the
formation of a preternatural anus unqualifiedly condemned. The
argument is brought forward that collapse in consequence of strangu-
lation followed by gangrene is rare in strong persons in middle age,
and therefore can but seldom contra-indicate enterectomy and suturing.
The author describes a procedure proposed by Chaput and Duchamp,
the essential point of which is the immediate removal of the spur resulting
from an artificial anus, by primary longitudinal splitting and subse-
quent suturing. After circular resection of the gangrenous portion,
with or without cuneiform excision of the mesentery, both open ends
of the divided bowel are placed side by side. In each a longitudinal incision of from six to eight centimeters is made, one to two centimeters distant from the insertion of the mesentery. Then the four edges of the two longitudinal splits in the intestine are sutured so that both lumina of the bowel freely communicate. After this suturing (longitudinal enterorraphy) the two ends of the bowel form a condition like a pair of trousers, whose common upper broad opening still requires closing. This closure may be made completely or a small opening may be left as a kind of safety-valve, and its edges sutured to the hernial sac. The latter course is usually preferred by Chaput and Duchamp, the fistulous opening which results closing spontaneously or subsequently requiring but a slight freshening of the edges, and suturing. This course involves complete renouncing of the method of reposition of the closed bowel.

The disadvantages to which this portion of the procedure may lead is shown by the course pursued by a case operated upon by Duchamp. The symptoms of strangulation did not cease, and it was only after the introduction of a catheter through the fistula into the upper end of the bowel that fecal matter escaped. An artificial anus resulted, which was closed by a later operation. The cause of this complication resided in the narrow canal itself. The pressure exercised upon the walls of the ends of the bowel prevented the escape of fecal matter from the opening, as well as communication through the slit in the spur. M. in order to avoid this, recommends either reposition of the completely sutured intestine or a greater length than eight centimeters to the longitudinal slit.

The first patient operated upon by Duchamp recovered without any disturbance of the course of healing whatever, the small fistulous opening closing spontaneously. In Chaput's case the cure of an artificial anus, which had resisted other measures, was attempted. The patient from excessive weakness proved to be an unfavorable subject for operation, and died two days afterwards. The autopsy showed no sufficient cause of death, no peritonitis existed.—Brochure, 1892.

(The value of this method can only be determined after more extensive trials. It should be said, so far as the remark concerning the rarity of collapse following strangulation and gangrene of intestine
is concerned that experience does not bear out the assertion made. Collapse does occur, and that rather frequently. So pronounced has this been in several instances that I have been constrained to deny the patient a general anaesthetic and have operated under cocaine instead. There can be no question that the fate of the patient frequently depends upon the rapid completion of the operation. As to the length of the slit in the spur: this should be not less than ten centimeters after the parts are entirely healed.)

GEORGE RYERSON FOWLER (Brooklyn.)

EXTREMITIES.

I. Subperiosteal Excision of the Tarsus, and of the Proximal Extremities of Fourth and Fifth Metatarsal Bones for Caries, with Perfect Preservation of the Shape and Functions of the Foot. By DR. DON EMILIO REINA G. MARTIN (Spain). The patient, a child eight years of age, had a tubercular arthritis of the ankle-joint, with numerous fistulae on dorsal and plantar surfaces of the foot. Two large incisions along the foot starting underneath the malleoli and terminating in the distal quarter of the first and fifth metatarsal bones were made and then two vertical incisions were made to increase the room. All the soft parts of the dorsal region were dissected up and the diseased bones were excavated by gouge and trephine. The calcaneus, astragalus, scaphoid, cuboid and the proximal extremities of the fourth and fifth metatarsal bones were scooped out with the exception of the thinnest possible shell, which was retained as a "mould" for the periosteum and to aid in the regeneration of new bone. An aperture for drainage was made in each bone. The bone cavities were carefully disinfected, drainage tubes inserted, the soft parts sutured, and an iodoform poultice and a retentive dressing was applied.

The foot is now perfectly healed, of normal shape and length, with the exception of a slight contraction of the calcaneus which renders the heel slightly less prominent than normal. The functions of the joints and foot are normal.—Revista Medica de Sevilla, Dec. 15, 1891.

SAMUEL LLOYD (New York).
I. Idiopathic Pre-vesical Cellulitis. By Dr. Englisch (Vienna). Twenty-three cases of this affection from the literature of the subject were studied by the author. In addition to this he observed seven cases in his own experience. The disease occurs most frequently in males, and at ages ranging from twenty-five to thirty years. The origin of the affection, in all probability, depends upon infection, and it is more than likely that scrofula or tuberculosis plays an important role in its etiology. The symptoms may be divided into two groups, corresponding to two stages of the affection. It begins with symptoms which are not all referable to the pre-vesical space, including constipation, subsequent diarrhoea, urgent gastric symptoms, etc. Severe intra-abdominal disturbance is suggested by the symptoms. Between the second and twelfth day localized symptoms arise, such as pain and the characteristic tumor. The latter suggests by its appearance an over-filled bladder. It rises from below upward, is sharply circumscribed, but differs in shape from the bladder by presenting a triangle with its base uppermost, and the point of which disappears behind the symphysis pubis. The most certain method of establishing the character of the tumor, however, is by the use of the catheter. Participation of the bladder may occur secondarily, however, this leading to retention in some instances. The inflammatory process may spread from the pre-vesical space in all directions, reaching to the thigh, extending with the pelvis, and may terminate in resolution or suppuration. The latter termination is not so frequent as is generally supposed. When it does occur and passes unrecognized, rupture of the abscess cavity may occur into the bladder, vagina, urethra, bladder, peritoneal cavity or colon. Occasionally a chronic form of the affection is observed. In these instances the premonitory or preliminary symptoms are absent, and the appearance of a tumor with or without retention leads the patient to seek medical aid. The prognosis of both the acute and chronic forms is not so unfavorable as previous writers have led the profession to suppose.—Wien. Med. Wochenschrift, 1892, Nos. 42-46.

George Ryerson Fowler (Brooklyn).
I. Rotatory Dislocation of the Patella. By Wm. Anderson, F. R. C. S. (London). Two cases are reported: 1. A boy, æt. fifteen, well grown and with good muscular development, slipped while walking, not striking the knee in falling, but on rising found it fixed in the extended position and very painful. The right knee was affected and the patella was found to be dislocated with its outer margin turned forward and the articular surface outwards, while the inner margin rested between the condyles. The outer border of the rectus was very tense and a tight ligamentous band extended from the projecting margin of the bone to the inner tuberosity of the tibia; the patella was quite fixed. Attempts at reduction under chloroform were at first unsuccessful, the quadriceps still remaining tense, but pushing the anaesthesia still farther, on flexing the joint about forty degrees and manipulating the patella, it was replaced with but little effort. The limb was placed in a back splint and, aside from some effusion into the joint, no other symptoms arose.

2. A stout, but somewhat unhealthy-looking woman, æt. twenty-three, while rising from the kneeling position on the floor, slipped and struck the outside of the left patella against the corner of an arm-chair. Pain in the knee and inability to flex the joint became evident. On examination the patella was found to be dislocated as in case 1, the tension of the rectus being marked, but without the tibio-patellar band. As before, efforts at replacement were unsuccessful, owing to the persistent rigidity of the rectus, but on pressing the anaesthetic farther the tension diminished, and during gentle manipulation while the knee was extended the bone snapped into place.

The author calls attention to the fact that it is possible to produce this dislocation on the cadaver only by dividing the ligamentous structures and actually twisting the bone into its abnormal position by means of a lever introduced behind it, from which he assumes that mechanical violence applied on the living subject can only act by provoking the muscular spasm which really effects and maintains the displacement. Wolf found reduction impossible after section of the
ligamentum patellae, and even after division of this and the tendon of the rectus, while Gaulke succeeded by the use of a carpenter's vise, and others by introducing a lever or a hook beneath the bone through an opening in the capsule. But the writer especially emphasizes the fact that under anaesthesia the rectus remains rigid after complete muscular relaxation has otherwise been obtained, and calls attention to the value of securing relaxation of that muscle by more complete anaesthesia, as a factor in obtaining reduction, before resorting to extreme operative measures.—London Lancet, Oct. 1, 1892.

James E. Pilcher (U. S. Army).

II. Implantation of Decalcified Bone after Senn's Method. By Dr. Le Dentu, Paris. Le D. reports the successful application of Senn's method in ten cases. The first case of his series occurred in a sixteen year old girl, the subject of tuberculosis of bone. A resection of 7 centimeters of the tibia and fibula was followed at once by its replacement by means of decalcified bone. Six weeks after operation commencing ossification of the bone was observed. Three months after the operation the patient was dismissed from the hospital with a simple retentive bandage, and three months later it was demonstrated that complete bony consolidation had occurred.

In the procedure as carried out by Le D. the bones are prepared somewhat differently from the method described by Senn. The femur and tibia of the ox are selected for the purpose. The pieces are first freed from periosteum and placed for eight days in a 16-100 solution of hydrochloric acid. They are then washed, placed for twenty-four hours in a sublimate solution, and finally preserved in a solution of iodoform in ether.

Implantation of bone is indicated in, 1st, extensive resection of bones for disease. 2d, in complete removal of long bones for tumor, or larger portions thereof in extensive comminuted fractures. 3d, in cases of extensive curetting for osteo-myelitis a tuberculosis, a considerable defect remaining. 4th, in trephining of the skull. 5th, in cases of operative treatment of pseudarthrosis.—Gaz des hopitaux, 1892, No. 40.
III. Treatment of Deformity following Fractures of Bones healed in Deformity. By Prof. Helferich (Griefswald.) Union of fractures with deformity is to be avoided by correct diagnosis, the shape and the localization of the separate fragments and the possibility of the interposition of a muscle are to be considered in this connection. Correct therapy is absolutely essential, the application of a plaster-of-paris bandage immediately after injury considered especially dangerous. A fracture uniting in deformity must be corrected as early as possible. Osteoclasis with Rizzoli's apparatus or osteotomy with subsequent extension by weight and pulley are measured to be employed. Hethen efficiency of these measures by communicating shows a number of interesting histories.—Münchener Med. Wochenschrift, 1892, No. 12.

IV. Ivory Dowels for direct Immobilization of Bony Fragments and as Support for the Periosteum. By Dr. J. Goudard (Aarau, Switzerland.) G's paper furnishes an interesting contribution upon the subject of the encapsulating of foreign bodies, particularly the transplantation of ivory dowels to replace bony defects. G. demonstrates how well aseptic foreign bodies are born by quoting a case where, after amputation of the thigh and profuse scraping out of the medulla, a rather large compress of gauze was left in the cavity of the bone, this was found and removed after a year had elapsed. Professor Biether, in whose clinic G. made his studies, performed this transplantation in thirty-five instances. In twenty-eight cases of recent complicated fractures he connected the bony fragment in the usual way by implanting an ivory dowel into the medullary canal: he was successful in twenty-four cases. Seven additional implantations were performed in cases of pseudarthrosis the ivory cylinders being intended to support the periosteum. Among the thirty-five cases the final removal of the foreign body was required sixteen times: complete consolidation, however, being accomplished in every case. G. finally reports the details of an interesting though fruitless attempt to restore laryngeal cartilage which had been destroyed, the perichondrium, however, having been preserved.— Pamphlet, 1892.
V. Study upon Luxations of the Interarticular Menisci of the Knee. By Dr. Braquehaye. Author collected from the literature of the subject sixteen observations of these very rare luxations and added one new case. On the basis of his studies he reaches the following conclusions: 1st, the luxation may be external or internal, corresponding to the luxated meniscus and anteriorly or posteriorly from the lateral ligaments. 2d, the luxation in an external and anterior direction is the most frequent; inward and posterior most rare. 3d, the luxation occurs only in cases of flexion of the knee, the limbs being separated. 4th, predisposing causes are (a) juvenile age, the joint surfaces of the menisci of children being not so smooth as adult, but having an anterior and posterior facet, and the condyles of the femur gliding over the latter, the intermediate discs fastened at the tibia or capsule moving anteriorly; (b) diseases of the joint as rheumatism, particularly hydarthrosis. 5th, the direct causes include all traumatisms that stretch or tear the lateral ligaments; further, certain movements in the joint producing relaxation of the ligaments, as for instance, rising from a stooping position.

The symptoms of the injury consist at first of an audible cracking accompanied by a violent pain. When the luxation is complete extension is impossible, and the patient is unable to place the foot on the ground. Usually he accomplishes reduction himself, but the same appearances recur, flexion and tension upon the extremity being repeated. At the side of the patella a small hard flattened body is clearly prominent. An effusion in the joint does not occur usually immediately after the accident, but more frequently later on. The symptoms of luxations backward are very similar to those anteriorly. If the prominence is not clearly felt the diagnosis may often be obscure.—Journ de Med. de Bordeaux, 1892, No. 30, p. 32.

George Ryerson Fowler (Brooklyn).

VI. Fibro-Plastic White Swelling, Tubercular Arthritis with Fibro-Plastic and Fatty Hyperplasia of the Synovial Membrane. By Dr. E. Nicaise, Paris. Dr. Nicaise reports four cases of disease of the knee-joint, tubercular in origin, but differing to such a degree from the ordinary cases of tubercular arthritis as to lead
to the possibility of an error in diagnosis. He says that in rare cases of tubercular joints, where the disease has continued with only a moderate intensity for a long time, there is a constant surplus of nutritive material and a new connective tissue forms between the fibres of the old connective tissue. This is hyperplasia, formation of fibro-plastic material. This disturbance of nutrition never directly produces any destruction of tissue, its continuance, on the contrary, produces new tissue. It can only take its point of origin from the tubercular nodule and it may give rise to a very considerable tumor. In the first case reported the synovial membrane measured from 3—4 cm. in thickness and the knee measured 41 cm. in circumference. The circumference of the knee in the second case was the same as the first, while the knee on the healthy side was only 31 cm.

The first impression in these cases is that they are peri-articular osteo-sarcomata, a sarcoma or a lipoma of the synovial membrane, but the recurrence of inflammatory attacks soon settles the diagnosis.

In the first case there were two abscesses, one communicating with the articulation the other developed over the tibia above the point where a sequestrum had formed, but it did not communicate with the bone. These abscesses were tubercular, with serous exudation and formation of fibro-fatty off-shoots which owed their formation to a particular disturbance of nutrition which has been found in the articular synovial membrane. The articular synovial membrane of the knee was transformed into a yellowish, fatty, fibro-plastic tissue of considerable thickness in front and laterally with vascularization of the skin and development of the subcutaneous veins, which might easily have been mistaken for sarcoma. From the side of the articular-cavity this fibro-fatty mass presented some yellowish off-shoots which filled up the articulation. Under the microscope this mass and the off-shoots were found to be composed of fibro-plastic tissue infiltrated with a great quantity of fat and enclosing arterioles which were affected by endarteritis and sometimes even obliterated. The surfaces of these off-shoots are covered by an amorphous bed, non-organized, which was thought to be composed of synovial concretions.

The evolution was slow without setting up acute inflammatory processes, and without the complication of suppuration from pyogenic
GYNECOLOGICAL.

I. Sarcoma of the Uterus. By Dr. Terillon (Paris). The author gives a very valuable contribution to our knowledge of sarcoma of the uterus, based upon 14 personal observations. Two principal forms are distinguished, namely, sarcoma of the mucous membrane of the uterus and interstitial sarcoma. Both forms may be combined to a greater or less extent with each other, in each case the disease of either tissue exercising a marked influence upon the other and upon the enlargement of the organs and uterine cavity as well. Nevertheless, in most instances, the two forms are well characterized. The author describes two varieties of sarcoma of the mucous membrane, and likewise two varieties of the interstitial variety. The first variety of the mucous membrane group is characterized by knobby swellings, while the second is the ulcerative form (The polypoid variety is not mentioned, G. R. F.). The first of the interstitial types is characterized by considerable hypertrophy of the entire uterus, the whole thickness of its muscular structure being apparently attacked.

SAMUEL LLOYD, (New York.)
simultaneously by malignant new formation growth. In the second type of the last named group, the growth is more circumscribed in its development in the muscular structure, proliferates toward the serous surface, crowds the latter forward, becomes more or less pedunculated with the base of the pedicle towards the mucous membrane of the uterine cavity. Finally, T. describes sarcoma with cystic degeneration.

Uterine sarcoma seems to attack, by preference women between the ages of 30 and 50, and particularly multipara. Only two of the 14 cases observed by T. had born each one child, while young. The growth of the neoplasm is usually very rapid. The general condition of the patient, however, is frequently but very slightly disturbed for a long time. The transformation of the fibromata into sarcoma is possible, according to T's. views; he asserts that he has twice observed this to take place. It is but a rare occurrence, however.

The diagnosis presents some difficulties, particularly in the commencement of the disease. The principal points relative to the age of the patients, the occurrence of profuse metrorrhagia, considerable and rapid increase in the size of the uterus and enlargement of its cavity. Microscopical examination of removed portions should always be made when practicable.

The prognosis is exceedingly unfavorable. Recurrences are of frequent occurrence; T. refers to one case recurring after two years.

As to treatment, in case an operation is still justifiable, vaginal extirpation of the uterus is preferable in cases of small tumor; in case of larger growth, laparotomy with supra-vaginal extirpation, or as a more reliable procedure, as far as ultimate result is concerned, total extirpation.

Blaise (Progrès med., 1891, No. 9), referring to T.'s paper calls attention to the occurrence of watery discharge in addition to metrorrhagia, as a diagnostic point. Again, as 'the sarcoma of the mucous membrane does not extend to the neck, he prefers the supra-vaginal amputation rather than the total extirpation recommended by T. The value of repeated curretting of the diseased mucous membrane in cases of sarcoma of this structure is likewise emphasized by B.—*Bull. et mem. de la soc. de Chirg. de Paris*, T. XVI, p 746.
II. Recto-Vaginal Fistula. By Drs. Le Dentu, Félizet, Quénu (Paris). Le Dentu recommends the following procedure, as used successfully by himself. The left index finger being introduced into the rectum, he circumscribes the fistula upon the vaginal side by a semi-lunar incision having its convexity directed upwards. This incision begins and ends below the lowermost level of the fistula, and in its whole course is distant from the edges of the latter for some centimetres. A second incision, convex in the same direction unites the beginning and end of the former one, passing the fistula immediately adjacent to its lower edge. The semi-lunar shaped flap of mucous membrane thus marked out is excised. That portion of the recto-vaginal wall below the fistula is now detached for some centimetres, and, in order to avoid pocketing, a triangular-shaped flap of the rectal mucous membrane is resected, the anterior vaginal flap is drawn upwards beyond the fistula and is fastened here to the horseshoe-shaped freshened surface by means of sutures.

Félizet operated by splitting the recto-vaginal wall by means of a cross-incision from the perineum, extending beyond the upper edge of the fistula. The posterior flap (the anterior rectal mucous membrane), is then split upwards to the fistula. The feces were then evacuated through the anus, or perineal wound. The vaginal wound, in this way, closed spontaneously without further interference. The perineal wound likewise closed spontaneously later on, by cicatrization.

Quénu employed a somewhat different, though not very dissimilar procedure. Like Félizet, he splits the recto-vaginal wall from the perineum by a cross-incision beyond the upper limit of the fistula. He then sutured both remaining fistulous openings each separately into the posterior vaginal and anterior rectal mucous membrane flaps with fine silk thread, and established drainage from the perineal wound by means of a drainage tube. In a case in which this method was employed the vaginal portion closed perfectly, but a recto-perineal fistula persisted. This finally healed, after thermo-cauterization.—Bull. et mém. de la soc. de chirg. de Paris, t. XVI., pp. 589, 595, 701.

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