

CASE I. Mrs. X., twenty-nine, consulted me in the spring of 1887. She was in all ways a perfect type of womanly development. There was nothing in her history pointing to uterine disturbance until complete cessation of menstruation three months before her visit. Coincident with this she began to grow stout. The amenorrhœa did not disturb her, but distressing occipital and vertical headaches, sleeplessness and general nervousness ensued. General hygienic and therapeutic measures, for one month, gave no relief. Selecting the day when the catamenia would naturally appear, I applied galvanism. Following the immediate brownish discharge there was a scanty menstrual flow. Bi-weekly sittings were continued through the month, and the subsequent periods were normal in all respects, and continued so until October, 1890 (three and a half years). The headaches and nervous symptoms and the extra flesh all disappeared, not returning during this interval. When I saw her in October she was confined to her bed, suffering as before from reflex symptoms. Circumstances made it necessary that she should be attended for some time before it was possible to employ the former treatment. She improved but very little. Menstruation had been absent two months, but the exact date for its reappearance not being known, bi-weekly applications were made. Menstruation followed the third treatment, and has since continued, a single application being made on the date at which the flow could be expected. The other symptoms are also cured.²

CASE II. Mrs. T., twenty-six years of age, sterile, married five years. Large, finely formed woman, accustomed to out-door life and much exercise. Consulted me July 23, 1890. Last menstruation, March 15th. Never irregular before. Suspected pregnancy, and came to me for confirmation, although presenting none of the subjective symptoms of the condition. Nothing in any way abnormal about the pelvic organs could be detected. There were many reflex nervous symptoms, and the patient said she was growing stout rapidly. A single application was followed by menstruation, which continued regularly until November. Then there were two applications more required, and the flow has normally appeared twice since.

CASE III. Mrs. J., twenty-eight years of age, married seven years. One child six years ago. Had always been irregular, the inter-menstrual period being five to seven weeks. This patient had very marked neurotic manifestations, almost "fixed ideas," a direct inheritance, and the period of delay beyond the regular time was one of distressing exaggeration of these symptoms, accompanied by great irritability.

March 20, 1890, the date of the first visit, galvanism was applied. The flow, then three weeks overdue, appeared within twenty-four hours.

In April, following bi-weekly applications, menstruation was six days late.

May. Exactly twenty-eight days.

June. Applied once each week during the month; one week overdue.

July. Applied twice at the expected date; appeared in twenty-eight days.

August. Applied only once; two weeks overdue.

September. No galvanism, but plastic operation performed; menstruation not recorded.

November. Applied once, just at the expected date; immediately appeared.

² April 10, 1891. Menstruation still regular.

December. Applied twice, just at the expected date; menstruation three days late.

The full record of this case demonstrates certainly the action of the galvanic current in abridging by a considerable interval the usual delay in the appearance of the flow, and also it relieved to a very considerable degree (according to the patient's statement) the nervous symptoms attendant on this delay.

CASE IV. Miss D., twenty years old. Menstrual history one of great irregularity. The usual history was appearance of the flow twice in three months and then no more for four, six or even ten months.

March 14, 1889, date of first visit. Had not menstruated since July, 1888, eight months. The flow appeared at once, normal in amount; reappeared again the next month; then was absent three months.

October 20, 1890. Has had no flow since July. Single application followed by scanty menstrual discharge, October 22d.

November 24th. Bi-weekly application; normal.

December 25th. Bi-weekly application; normal.

These cases represent a selected type of patients as described previously; and are not intended to include any and all cases of amenorrhœa to which I have applied galvanism with, as a rule, no immediately successful results.

The method of application has been the introduction of an intra-uterine electrode insulated to within an inch of its point which is made of platinum, a broad abdominal electrode of zinc covered with cotton. The current in my first case was not measured, but in all the later cases varied from fifteen to forty milliamperes, being carefully measured. The positive pole was abdominal and applied alternately over either ovarian region for fifteen minutes. Immediately, and for about twenty-four hours after the application, there was a brown discharge from the uterus. There was a marked difference in the patients with regard to the tolerance of the current. Occasionally very disagreeable crampy pains were produced, but I have seen no other ill effect.

RECENT PROGRESS IN SURGERY.¹

BY H. L. BURRELL, M.D. AND H. W. OUSHING, M.D.

CANCER OF THE BREAST.

THE results of a radical operation (amputation of breast, dissection of the axilla, removal of the pectoral fascia) in thirty-nine cases, are reported by Bihler.¹⁸ The final results are interesting. Sixty-five per cent. were found to have died. In 12.5 per cent. the disease has recurred, but the patients still live. Twenty per cent. are cured, among whom three have lived more than three years since the operation, and two have lived more than two years. The interval during which these operations were performed is from 1886 to 1888 inclusive.

THE ETIOLOGY AND SURGICAL TREATMENT OF SEPTIC PERITONITIS.

Reichel¹⁴ has contributed an interesting article on this subject. He thinks the absence of evidences of peritoneal inflammation at autopsies after laparotomies is not to be considered proof that death was not due

¹ Continued from page 380.

¹⁸ Münchn. Dissertation, 1890: Schmidt Jahrb., 1890, vol. 227, p. 261.

¹⁴ Deutsche Zeitschr. f. Chir., Bd. xxx, p. 1-84.

to septic intoxication, since in cases of ileus with intestinal paralysis, sepsis causes death before peritonitis develops. Among other things he claims to have observed that an artificial immunity in some cases from the effects of septic material was developed by the frequent introduction of small amounts of infectious material. In some animals where the first introduction was without deleterious effect after several exposures to small amounts, finally larger quantities could be injected with impunity. He found contrary to Grawitz, that faecal matter in the peritoneal cavity was actively infective. He considers the following the chief causes of septic peritonitis:

The presence of larger amounts of fluid in the peritoneal cavity than the serous surfaces can absorb. The constant renewal of the supply of pathogenic germs. The stagnation of putrefactive material in dead spaces. Anything acting to impede or lessen the absorptive power of the peritoneum or causing an increased transudation from its surface, for example, carcinoma, ascites.

Treatment: Prophylaxis, antiseptics, asepsis are the indications for treatment. The method of Mikulicz of iodoform gauze packing is objected to on the ground of toxic dangers and possibility of subsequent ventral hernia. The writer was unable to save animals in whom septic peritonitis was artificially caused. Irrigation with the usual antiseptic solutions, sublimate, salicylic acid, etc., were without avail. The animals died quickly. Also, in a series of experiments where the peritoneal cavity was washed out after the introduction of faecal matter prior to the development of the peritonitis the result was the same. Reichel claims that irrigation is useless and injurious even in healthy animals. A somewhat better result is seen where the peritoneal surface is gently sponged with gauze pads and gauze strips used for drainage. By this method he saved two out of nine dogs.

Reichel is apparently extremely sceptical regarding the so-called surgical treatment. The only conditions in which he considers it likely to be of service is in the encapsulated form of septic peritonitis from intestinal perforation, in which there is an early opportunity of cleansing the cavity and closing the perforation.

THE CURE OF TUBERCULAR PERITONITIS BY LAPAROTOMY.

F. König has reported the results of his investigation of 131 cases of this affection,¹⁶ 120 women and 11 men. Age of patients found to be from twenty to fifty years. He found 24 per cent. well at the end of two years after treatment. In some patients the duration of cure had reached thirteen, fifteen and twenty-five years. The mortality from the operation is reported as three per cent. It has been demonstrated by autopsies that pathological anatomical cure can be accomplished. The operation consisted of the abdominal incision of greater or less extent, according to the subsequent manipulations required. The fluid contents of the abdomen evacuated as far as possible. Sometimes the solid tuberculous products removed with scalpel scissors or curette. The results seem to show that more cases healed without the employment of antibacterial solutions, that is, the influences of these solutions were not proved to have any special curative effect. No scientific explanation is offered for the

¹⁶ Centrbl. f. Chir., 1890, xvii, 35.

disappearance of the tubercles, or the cure. The writer states that the different forms of tubercular peritonitis are curable.

ABDOMINAL SECTION FOR ACUTE INTESTINAL OBSTRUCTION.

Jordan Lloyd¹⁶ after giving the details of eight cases comes to the following conclusions:

(1) In acute intestinal obstruction our attention should be primarily directed to the strangulation of the walls of the bowel rather than to the stoppage of the faecal current. When strangulation exists immediate operation is demanded.

(2) The ordinary text-book distinctions between obstruction in the large and small bowel are not always to be depended upon.

(2) In all obstructions above the rectum calling for operation, median abdominal incision is the proper primary procedure.

(4) When the abdomen is open the examination of its contents should be systematic and expeditious, the hand being introduced into the peritoneal cavity, if necessary, and if the obstruction is not quickly discovered, the most distended coil should be fixed to the skin and opened at once. If the large intestine is the part involved, the caecum or sigmoid should be brought through a special opening made in either groin.

(5) With proper precaution a few feet of bowel may be withdrawn from the peritoneal cavity, and returned without difficulty and without serious risk.

(6) Rapidity of procedure with a minimum of disturbance are the essentials of operative procedure.

(7) The number of lives saved by abdominal section will increase, as earlier and more accurate diagnosis comes to be made.

INTESTINAL ANASTOMOSIS.

Still another means of bringing about intestinal anastomosis has been reported. T. B. Robinson¹⁷ says:

"The only objection to the decalcified perforated bone disks of Senn is the length of time required to make them. He criticises the catgut ring of Abbe and the catgut mat of Davis because they do not coapt enough serous matter; they yield and become macerated; they do not keep the bi-mucous fistula patent; and do not produce sufficient fixation and consequent mechanical and physiological rest to insure healing. The segmented rubber ring of Brokaw is objected to for similar reasons. The plate which the author has used most successfully in a large number of experiments on dogs is a combination of a ring of catgut fastened to a plate made of two pieces of rubber. The two pieces of rubber are stitched together at each end with catgut, and the ring is sutured to the sides of the rubber plate with catgut sutures. The needle-armed sutures of the catgut ring are inserted through holes cut in the rubber plate. A triangular piece is removed from each approximating edge of the segments composing the plate, in order to permit of faecal circulation. The author claims for this plate that it is successful in practical experiments; it is quickly made; it coapts the largest possible serous surface and holds in continuous approximation as long as desired the intestinal walls; it is readily absorbable and easily discharged."

¹⁶ London Lancet, April 19, 1890.

¹⁷ The North American Practitioner, vol. 11, No. 10, p. 451. American Journal of Medical Sciences, December, 1890.

RESECTION OF THE CÆCUM FOR CARCINOMA.

Dr. Senn¹⁸ has contributed a report of two cases in which this operation was performed, and comes to the following conclusions :

(1) Resection of the cæcum for carcinoma can be done with a fair prospect of a permanent cure if the operation is performed before the infiltration of the retro-peritoneal and mesenteric glands has occurred.

(2) Ileo-colostomy with absorbable perforated approximation-plates is the best method of restoring the continuity of the intestinal canal after excision of the cæcum.

(3) The best material for approximation-plates is decalcified bone preserved in an antiseptic solution.

(4) Hygroscopic and indestructible or inabsorbable material should not be used in the preparation of approximation-plates or rings, as the former may cause pressure-gangrene, and the latter may prove a source of danger by remaining permanently as a foreign body in the organ in which it has been introduced.

(5) Ileo-colostomy without resection of the cæcum is indicated in cases of intestinal obstruction from inoperable carcinoma of the cæcum, irreducible invagination without perforation or evidences of gangrene, and in cicatricial stenosis in the ileo-cæcal region not amenable to a plastic operation.

(6) Scarification of the serous surfaces interposed between the bone-plates, is the most reliable means of hastening the formation of adhesions and of shortening the process of definite healing.

(7) Resection of the cæcum and ileo-colostomy with or without enterectomy, should be done through a lateral incision, extending from near the middle of Poupart's ligament to a point half-way between the anterior superior spinous process of the ilium and the umbilicus.

(8) Suturing of the serous surfaces just beyond the margins of the bone-plates renders material aid in maintaining apposition between the serous surfaces which it is intended to unite, and furnishes an additional safeguard against fecal extravasation.

(9) Anchoring of the approximated parts in the ileo-cæcal region with a mesenteric-peritoneal suture, should be done in ileo-colostomy after resection of the cæcum.

HIGH EXTIRPATION OF THE RECTUM.

C. Lauerstein,¹⁹ Hamburg, reports a successful case in which a carcinomatous rectum was resected according to the Kraske-Schede method. The left lateral portion of the sacrum was removed as high as the fourth sacral foramen. He claims that a higher resection of the sacrum affects a motor branch of the fourth sacral nerve supplying the fundus of the bladder and the prostate. This differs from other operators who claim that the sacrum can be resected as high as the third foramen without injury to important nerves.

ON THE SYMPTOMS OF CHRONIC OBSTRUCTIONS OF THE COMMON BILE DUCT BY GALL-STONES IN REFERENCE TO SURGICAL INTERFERENCE.

In a paper which considers the prominent group of symptoms associated with gall-stones, Osler²⁰ has brought forward what he terms a "symptom-group," which he considers characteristic of the existence of

gall-stones in the common duct. The group of symptoms is as follows :

(1) Jaundice of varying intensity, deepening after each paroxysm, and which may persist for months or even years.

(2) Ague-like paroxysms characterized by chill, fever and sweating, after which the jaundice usually becomes more intense.

(3) At the same time of the paroxysms, pains in the region of the liver, with gastric disturbance.

He records eight cases of chronic obstruction of the bile duct, and draws the following conclusions :

(1) Chronic obstruction of the common bile duct is often accompanied by an intermittent pyrexia, associated with a symptom-group of the greatest diagnostic importance.

(2) This pyrexia is not usually the result of suppuration, as has been supposed, but occurs with a catarrhal cholangitis.

(3) That it arises from the absorption of a ferment, produced in the ducts, is rendered highly probable by the discovery of micro-organisms, both in the catarrhal and in the suppurative cholangitis.

(4) While recovery may follow, even after months or even years, a fatal event is only too common.

(5) A recognition of the importance of this intermittent pyrexia and its associated symptom-group, as diagnostic of obstruction of the common duct by gall-stones, should, in the present condition of hepatic surgery, lead to more frequent operative interference in these cases.

PROSTATECTOMY LATERALIS.

V. Dittel,²¹ Vienna, proposes to relieve a prostatic obstruction due to unilateral or bilateral hypertrophy by resecting the hypertrophied area through the perineal and ischo-rectal fossa, the incision for which he describes as starting from the coccyx, curving around the anus and terminating at the perineal centre. Through this the prostate is dissected from the rectum and the obstruction removed. He reports no case of this having been done on the living subject, and his description does not impress one that this method has any especial advantages or even equals the supra-pubic method.

CASTRATION OR RESECTION OF THE EPIDIDYMIS FOR TUBERCULOSIS.

A careful investigation of fifty-three cases by Dr. E. Dürr at Brun's Klinik, with reference to Bardenhauer's statement (some years ago) that resection of the affected epididymis was a preferable procedure to castration, has caused him to form the following conclusions: ²² That the subsequent affection of the remaining testis necessitating double castration is by no means so frequent as reported by Bardenhauer. That the partial operation, namely, the resection of the epididymis as already stated by Kocher, is not a desirable operation, for it by no means gives such protection from recurrence as the complete castration.

EXTIRPATION OF TUBERCULAR VESICULAR SEMINALES.

Ulmann²³ believes that this operation is indicated in cases of primary tuberculosis of the testes or epididymis when the vesicular seminales is invaded or when

¹⁸ Journal of the American Medical Association, June 14, 1890.

¹⁹ Deutsche Med. Wochenschrift, 1890, xvi, 2.

²⁰ Annals of Surgery, March, 1890.

²¹ Wien. klin. Wochenschrift, 1890, lili, 18, 19.

²² Beitr. zur klin. Chir., 1890, vi, 2, p. 451.

²³ Centbl. f. Chir., 1890, xvii, 8.

the vesicular seminales are primarily involved; a rare occurrence, and recommends the removal of the diseased tissue. Resulting sterility, the objection to such procedures, is considered as having no influence as contraindicating this method, since this condition is usually already produced by the disease. He employs the Zuckerkandl operation, that is, a curved incision between the scrotum and anus, the concavity towards the sacrum.

THE AFTER-TREATMENT OF SKIN-GRAFTING BY THE THIERSCH METHOD.

In an interesting article²⁴ V. v. Hacker calls attention to the extreme readiness with which recently grafted healed surfaces yield to external irritation, blows, etc., and ulceration recurs. Hence he claims that it is of considerable importance that such freshly healed surfaces should be carefully protected for a considerable time subsequent to the healing of the ulcerated surface, especially where the skin or cicatrix is immovable. He recommends a carefully applied flannel bandage, and later, massage. Commencing ulceration should be at once re-grafted.

THIERSCH SKIN-GRAFTING IN CARCINOMATOUS ULCERATED SURFACES.

E. Goldmann's²⁵ investigations confirm Kraske's report, and he concludes that the method is practical and of value. He has found it most successful in tumors rich in vessels and poor in cells. The strips of skin to be grafted should be as thin as possible. The influence of such grafts on the growth of the tumor is as yet undetermined.

LIGATION OF THE FEMORAL ARTERY AND VEIN.

Zeidler²⁶ has found that in twenty-five cases of ligation of the common femoral vein, one case of gangrene occurred. Of fifty cases of simultaneous ligation of both artery and vein, gangrene followed in twenty-four. Five cases where the artery alone was ligated two terminated in gangrene. Therefore it is not allowable to ligate the artery in case of injury to the vein as has been proposed. When both are injured of course this is unavoidable, and gangrene, although to be feared, is not inevitable. He reports two cases where recovery followed the ligation of both vessels.

THE CURE OF ANEURISMS BY INDUCING THE FORMATION OF WHITE THROMBI WITHIN THE SAC.

In an address to the Midland Medical Society,²⁷ William Macewen has presented an extremely interesting series of observations and cures of cases. He brings about a deposition of white thrombi within the wall of an aneurismal sac by the introduction of a pin, which scratches the intima of the sac. The instrument employed is a pin of sufficient length to completely transfix the aneurism, and to permit of manipulation within it. This calibre ought to be as fine as possible, the strength being only sufficient to penetrate the coat of the aneurism and the intervening tissues. This cylindrical pin tapers to a point like an ordinary sewing needle, and has, on its opposite extremity, a somewhat rounded head. As the coats of the aneurismal sacs vary in thickness, these pins must be made of various calibres, as those which may pass readily

through one aneurismal sac may not pass through others with thicker walls. They ought also to be finely polished, not only to facilitate their introduction, but to help to render them aseptic.

Before performing the operation, the skin over the aneurism ought to be carefully cleansed and rendered aseptic. The aseptic pin ought then to penetrate the sac and pass through the cavity until it comes in contact with the opposite side. It ought to touch the opposite side, and no more. Then one of two methods may be employed: either to move the pin over the surface of the inner wall so as to irritate its surface, or to allow the impulse of the blood-current playing on the very thin pin to effect the same object. If the wall penetrated by the pin on introduction be dense, the former method will be preferable, as the force of the blood-current produces such a feeble action on the thin pin as to be insufficient to move it to and fro while it is firmly grasped by a dense wall. After acting thus for ten minutes at one part, the point of the pin, without being removed from the sac, ought to be shifted to another spot, and so on until the greater portion of the internal surface opposite to the point of entrance has been acted upon. This ought to be done in a methodical manner. A single insertion of the pin through the aneurismal sac into its anterior may be sufficient to enable the point of the instrument to come into contact with the greater part of its internal surface, but in some cases punctures from various sides of the external wall may be necessary so as to reach portions of the tumor which cannot be attacked from the first puncture. While the pin is in the aneurism, it is surrounded by a portion of aseptic gauze, dry or moistened with an antiseptic solution. When it is withdrawn from the aneurism, the part ought to be covered with moist antiseptic dressing, preferably a watery solution of carbolic acid, which ought to be maintained for several days.

The period a pin may remain in an aneurismal sac without doing damage is, perhaps, dependent on the individual and the state of the aneurism, but it ought never to exceed forty-eight hours. It is questionable whether all the necessary advantages derivable from the irritation of the wall of the aneurism could not be produced within a few hours. No doubt its retention for twenty-four or thirty-six hours seems to produce a greater immediate effect.

If the aneurism be very large, several pins may be introduced from various points, always allowing a considerable interval to exist between each, otherwise, there might be too much damage to the vessel wall at one spot. In some instances the point of the pin has been engaged in the opposite wall of the aneurism, and has thus produced sufficient irritation. It need scarcely be said that the general health of the individual, the condition of the aneurism, and the surrounding tissues, ought to be carefully examined before commencing the treatment. If there be anything wrong with the health which could be put right before operating, that ought to be done. No one would think, for instance, of introducing pins into an aneurism which was inflamed, or where the tissues in the vicinity of the aneurism were in a state of erysipelas. It would also be necessary to render aseptic any sore which the patient had in other parts of the body.

Dr. Macewen has carefully recorded the cases which he has treated in this manner, and summarizes the results as follows:

²⁴ Ein Beitrag zur Casuistik der Thierschen Hautverpflanzung auf Geschwüre. Wien. klin. Wochenschrift, 1890, III, 19, 20.

²⁵ Schmidt Jahrb. f. ges. Med., 1890, Bd. 228, p. 80.

²⁶ Berlin klin. Wochenschrift, 1890, xxvii, 89.

²⁷ British Medical Journal, November 15, 1890.

