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THE CANADA MEDICAL RECORD.

Vol. XV.

MONTREAL, OCTOBER, 1886.

No. 1.

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Original Communications.

SOME POINTS CONNECTED WITH OVARIAN-UTERINE OPERATIONS.

By E. H. TRENHOLME, M.D.

Professor of Gynecology in the Medical Faculty University of Bishop's College, Montreal.

(Read before the Canadian Medical Association, Quebec, 19th August, 1886.)

In this brief paper it is my desire to refer to some of the details connected with operations for the removal of the uterus, or its appendages.

It is not my intention to refer to the diagnosis of uterine ovarian disease, nor deal with the after treatment, to any great extent.

With regard to the preparing of the patient for the operation, I would advise you not to resort to purgatives, especially avoid aloes and castor oil, both of which favor congestion of the hemorrhoidal vessels, and consequently renders the patient more liable to inflammatory action. The bowels should be brought into gentle action by diet and mild laxatives; avoid emptying the bladder, especially in extirpation of the uterus, its presence being easily recognized when full and not so liable to be injured; the legs should be wrapped in cotton wool, especially in cold weather, and the temperature of the operating room not less than 85°. The cotton wool can be removed after reaction has been established.

There should be ready for use, a couple of dozen of hot towels, which are to be applied, as need may arise, around the body and over the abdomen during the operation; the temperature of the exposed bowels and surface of the body can in this way be easily maintained. It also protects the patient from escaped fluid and blood.

I prefer to stand on the right side of the table, which is placed diagonal to the window, so as to allow the light to fall directly upon the abdomen of the patient.

The instruments required for these operations need not be very numerous nor complicated; generally speaking a scalpel, scissors, director, half a dozen Keberly's forceps, three or four sponges, silver wire, shoemakers' thread, and horse hair, a needle-holder and needles will suffice. I would press the importance of having clean sponges, instruments and hands, and allow no explorations of the parts during the operation by other hands than your own. Not only must the sponges be clean, but they require careful washing during the operation in plain water, and then squeezed out of carbolized water before handing back to the operator. This part of the work should be entrusted to a competent assistant; abundance of boiling water and water that has been boiled only should be used. If this is attended to it matters little whether or no carbolic acid is used. It is well, however, to have all instruments, at the time of operation, kept in I to 20 solution of carbolic acid.

For ligating the pedicle and all vessels, No. 20 shoemakers' white thread, single or double, well carbolized, is all that is needed. My reasons for pre ferring this ligature to all others are, that it is quite strong enough, even single, to secure all the vessels

that should be enclosed in one ligature, that it affords a safe knot, is easily disintegrated and removed by absorption. This ligature should be soaked at least 24 hours in pure carbolic acid before using, and not allowed to come in contact with water, and for convenience it may be cut into lengths of about 15 inches and allowed to stand in pure alcohol. For closing the abdominal wound there is nothing better than silver wire for the deep, and carbolized horse hair for the superficial sutures. Great care should be taken when closing the wound to have the divided structures carefully coapted, while at the same time avoiding the inclosure of any muscular tissue—as advised by Dr. Goodell.

By attention to this last point we avoid suppuration in the track of the sutures, and save the patient a great deal of suffering. There can be no advantage from effecting union between the recti muscles. It cannot possibly strengthen the abdominal wall, and must interfere with the proper action of these muscles.

In removing the silver sutures cut the wire close to the skin, with the blades of the scissors lengthwise of the body. In this way, pain and injury of the tissues in the track of the wire are avoided. In all my operations I use horse hair for the superficial sutures, and never, in any instance, has it slipped or caused the slightest irritation. As to the abdominal wound there is much need for good judgment in selecting the best place and mode of making the incision.

It is most important to confine the wound, as nearly as may be, to the medium line midway between the umbilicus and the pubis. In no case should the incision be extended toward the pubis nearer than one and a half inches. The reason for this is that the lower parts of the abdominal wall are the most important for sustension of the bowels, and also because the ligamentous structures of that part when once divided are difficult to co-apt and retain in juxtaposition till union takes place. A small incision of 1½ to 2½ inches is all that is needed in most cases of ovariotomy or removal of the uterine appendages, and when this wound is properly made, it unites perfectly and becomes almost obliterated after a few months.

The abdominal incision should be made in the median line, so as to divide the sheath of the recti muscles without cutting a single muscular fibre, for the reasons already given. The division of the skin and adipose tissue should be made at one

stroke of the scalpel; it is worse than mere waste of time to divide the structures upon a director layer by layer; it is a bungling way to operate, and leaves the edges of the wound in such a state as to interfere with primary union. Care is needed in entering the peritoneal cavity; but be sure you are in the cavity before proceeding further with your operation—I have seen more than one operator attempt to enucleate the cyst before cavity had been reached.

In ovariotomy or spaying, having reached the pedicle, it should be ligated in small segments, taking care to avoid wounding any vessel, and when possible ligating the larger vessels by themselves—use the linen thread, tie firmly and cut off short—you need not fear hemorrhage. Always divide the distal end of the pedicle with the scissors, and at least ¼ of an inch from the ligature. I need not refer to the importance of thoroughly cleansing the cavity, and introducing a drainage tube when necessary or a piece of carbolized lint. It is not advisable to allow a drainage tube to remain longer than 36 hours.

We have already referred to the closure of the wound and, therefore, speak of external supports. I advise the use of carbolized gauze to the wound, a pad of 6 or 7 thicknesses, 3 inches wide, placed on the wound, and kept in place by 2 or 3 straps of rubber plaster, not more than 10 inches long. I allow 110 other dressing, except in those cases where the tumor removed was of enormous size and the parieties flabby, when an abdominal bandage is applied for 24 or 36 hours.

Bandages are of no use, they greatly inconvenience the patient, and interfere with the use of hot water fomentations which are of great comfort and service in almost all cases for the relief of pain and arrest of threatened inflammatory action. Another point is, that I allow my patients to move in the bed so as to secure the most comfortable position. If the vessels are properly secured there is no danger of hemorrhage, and the relief from a constrained position, long maintained, is of great value in securing nerve and muscular rest. I also believe such movement favors the restoration of the natural position of the bowels, which sometimes become deranged during the operation. Anyway, I have never seen any ill effects from such movements.

With regard to removal of uterine fibroids I have been led to vary the operation a good deal. When the growth is large, I think it well to divide

the mass in a vertical line, having, of course, constricted the pedicle to prevent bleeding, and then having enucleated the growths I form the stump of the uterine tissue only, making the V incision, referred to in a former paper upon this subject. This mode of forming the pedicle has been used by myself for some years; yet inasmuch as Auguste Martin has adopted the same procedure, I am unable to say which of us is entitled to priority. One great advantage in thus operating is that a pedicle can always be secured, and the vascular connection of the flaps with the pelvic circulation need not be completely cut off. By this procedure the roof of the pelvis is maintained for the support of the abdominal viscera. The quilting, or shoemakers' stitch, used by me to co-apt the flaps suffice to control all hemorrhage after the ligation of the uterine arteries. The advantage of this mode of dealing with the pedicle requires no special pointing out. Another thing to which I would refer is the value of linseed tea enemata; they greatly facilitate the passage of flatus, and give much comfort to the patient, while they are valuable for the sustentation of the patient at a time when but little nourishment can be administered by the mouth. The value of hot water fomentations in threatened peritonitis and cellulitis is worthy of more attention than is generally supposed to be necessary. To be useful, however, they must be efficiently applied, and here I would say trust no one to do the work without you have seen that they can do it well.

As to medicinal treatment I hold but little to it. Aconite in solution, in 2 or 3 drops doses every 4 hours, is of some value when the pulse is wiry and quick, and the skin hot and dry.

For the distress arising from flatulence I have found caraway tea frequently do good service. When possible avoid using the catheter, allow the patient to pass her urine voluntarily.

There are many points connected with uterine ovarian operations which I have not alluded to, but have briefly referred to some things that I deem to be original, and to others that, perhaps, are not generally known. My main object, however, has been to elicit a discussion, and if in this respect my hopes are realized I shall be satisfied.

An interesting discussion followed upon the reading of the paper, a report of which will appear in the "Transactions of the Canadian Medical Association.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, June 11th, 1886.

T. G. Roddick, M.D., President, in the Chair.

Lupus of the Feet .- Dr. R. J. B. HOWARD again exhibited the boy, shown at a previous meeting, to show the effect of treatment. The history of the case is as follows:-Boy, aged 12, good family history, was brought to the Dispensary on account of a cough. He was found to have bronchitis, which improved under treatment. Dr. Howard was asked to see his feet, which were said to be "breaking out" on the skin. He has angular curvature, involving the lower dorsal region. First noticed when 31/2 years old. His feet were first affected in his sixth year. A small "scurfy" spot appeared on the right foot, spreading steadily, and healing at centre. When seen, it appeared as a serpiginous patch, about 4 inches across. On the right ankle and instep, smaller similar patches were seen, also on outside of right little toe and left great toe at metatarso-phalangeal joint. The patch was covered with a crust or scab of somewhat papillary appearance. No pain or tenderness, and never ulcerated. Such was the condition when brought before the Society on May 1st. Following the advice then given, he ordered poultices to remove the crusts, when the appearance presented was that of a typical cutaneous lupus. The acid nitrate of silver was then applied to each tubercle. Great improvement was evident.

Extirpation of the Uterus per Vaginam for Epithelioma.—Dr. PERRIGO related the case as follows: R. B., aged 31, unmarried, but had an illegitimate child ten years ago. Family history good. Father dead from cardiac disease. Mother is still living. Has four brothers and four sisters, all living and healthy. Patient began to menstruate at 13 years old, was always regular. Felt perfectly well after her confinement. Four years ago had an illness which kept her in bed for two or. three weeks, the most prominent symptoms of which were severe pains in both legs, from the hips downwards. While convalescing, had some uterine hemorrhage, occurring in the interval between the menstrual periods. About two years after this illness she began to menstruate more profusely and more frequently until, during the

last year, she was "unwell all the time." Consulted several physicians, without receiving any benefit. No examination had been made by them. Never complained of any pain in connection with the hemorrhagic discharge. During last winter her health and strength suddenly began to fail. In the spring she entered the Western Hospital. When examined, the presence of epithelioma was discovered, involving the cervix and a very small portion of the vagina next to the anterior portion of the cervix. Pacquelin's thermo-cautère was thoroughly applied on two occasions, but with only temporary benefit. It was then decided to extirpate the uterus per vaginam, as there was a capacious vagina, and, besides, the whole disease could be removed. Drs. Hingston, Kennedy and Rowell were the assistants. A horizontal incision was made in Douglas's pouch, enlarged by the finger, the uterus retroverted, after which a ligature was placed around the organ at the junction of the cervix with the body. This was done for the purpose of traction. The after steps of the operation consisted in taking up a certain portion of tissue with a threaded aneurism-needle, tying, and then dividing with scissors. Both Fallopian tubes were divided in the same way. After removal, a circular opening was left at the upper end of the vagina through which a small loop of intestine could be seen, but which did not come down. Three sutures were put in to draw the edges of the vagina together, and rubber tubing to facilitate drainage. The bladder was uninjured, and there was hardly any hemorrhage during the operation. Excepting some vesical catarrh, recovery was uninterrupted. The patient left for home six weeks after the operation.

Dr. ROWELL exhibited the uterus.

Dr. Cameron said the patient came to him at the out-door department of the Western Hospital. She complained of hemorrhages lasting over a year-An examination revealed this malignant disease. She did not suffer any pain.

Dr. Gardner said that hemorrhage was a very constant symptom of malignant disease. He, however, mentioned a case he had seen with Dr. McCallum, where the only symptom was leucorrhœa. Menstruation was normal, and there was absence of pain. On examining, a rapidly-growing mass, the size of an egg, involving the cervix, was found. This was removed with the knife and scissors, and chloride of zinc applied. He had never removed a uterus per vaginam. Dr. Schröder

has good success, but it was not yet decided which operation was best for prolonging life.

Dr. R. J. B. Howard said that absence of symptoms in these cases was remarkable. He knew of a case where a woman consulted a doctor for bleeding piles, and it was found she had a large cancerous mass involving the uterus. She had no symptoms whatever.

Dr. HINGSTON said the practical question was, should we operate or not? He was in favor of operating if the disease be confined to the uterus or involving as much vagina as can easily be removed. If the broad ligaments are diseased, or if the vagina be much infiltrated, he would not operate. He was in favor of removing per vaginam, because the shock was less and hemorrhage less.

Dr: Shepherd said the operation in a suitable case was as justifiable as removing the rectum or tongue.

Successful Ovariotomy in a Pregnant Phthisical Woman.

Dr. GARDNER related the case: Mrs. A., mother of two children, has suffered for many years with cough, hæmoptysis, and purulent expectoration, together with the physical signs of phthisis. A tumor was diagnosed five years ago by her family physician. Was seen a year ago last March by Dr. Gardner; at this time an operation was not recommended, for, besides the patient's general health being bad, the tumor felt as if there were adhesions in the pelvis. Her menses ceased last February, and symptoms of pregnancy came on. She suffered much from nausea and vomiting, and also orthopnœa. Something had to be done to relieve this last symptom. Dr. Gardner considered his best course was to operate, and not to induce premature labor, as some recommended. Two weeks ago, with Drs. Roddick and Bell assisting, he performed ovariotomy. On opening abdomen, the dark brownish-red uterus contrasted strongly with the pearly glistening tumor. adhesions existed, and there was a good pedicle. Convalescence was perfect. The temperature never got above 99°F. There was very little vomiting, and the ether did not affect the lungs. The stitches were removed on the seventh day. Her breathing became easier, and the cough and expectoration lessened.

Three Cases of Cysts of the Broad Ligaments.

—Dr. Gardner briefly related three operations he had recently performed for cysts of the broad

ligaments. The first case was that of an ordinary cystoma, which he enucleated, a good convalescence following. The second case was one where he intended opening a deep abscess; but, after getting into the abdomen, found a cyst above it this he opened, and stiched its walls to the abdominal opening. Through drainage was maintained by tubing through the abdominal opening, cyst, abscess cavity, and out through Douglas's pouch and the vagina. In this case convalescence was slow. The third case was a large sessile cyst, which was incised and stitched to the sides of the abdominal opening, and a glass drainage-tube inserted. Patient did well.

Dr. HINGSTON then read a short paper entitled "Some Remarks on Ovariotomy."

Stated Meeting, September 24th, 1886.

J. C. CAMERON, M.D., 1ST VICE-PRESIDENT, IN
THE CHAIR.

Case of Congenital Wry-Neck .- Dr. LAPTHORN Smith exhibited a case of congenital wry-neck in an unmarried female, 26 years of age. Her father and mother are alive and well, and she is one of a large family, all of whom are alive and (except herself) in good health. Before her birth her mother received a severe fright, to which she attributed the girl's deformity. Ever since her birth she says she has been troubled more or less with a spasmodic condition of the right sternomastoid muscle. During the last few years the muscles of the face and throat have become involved, and now even the muscles of the lower extremities are in a state of clonic contradiction, which gives her a gait similar to that seen in locomotor ataxia. patellar reflex is markedly increased; were it not for this fact, and also for the fact that it was of congenital, one might think that the disease was of an hysterical nature; for it completely disappears when she is asleep, diminishes very much when she s not observed by anyone; while, when she comes to see the doctor, spasms of her face and neck become so very severe that her features are frightfully distorted, and she appears to be in imminent danger of suffocation; and, indeed, feels as if she could not get another breath. The muscles of the tongue are also affected, rendering her speech stammering. The muscles at the back of the neck, opposite to the affected side, have become enormously hypertrophied in their efforts to oppose the contractions of the sterno-mastoid. With regard to the prognosis, Dr. Smith said it was not favora-

ble in these cases, operative interference being contra-indicted; for as soon as the sterno-mastoid is cut, the disease invades some other muscle. The treatment, therefore, is nearly entirely medical. This patient has greatly improved under 20-grain doses, three times a day, of the mixed bromides of ammonium, sodium and potassium; but nearly the whole list of narcotics have been recommended, such as chloral, chloroform, ether, morphia and atropine; also tonics, such as iron, stychnine and arsenic. He was alternating the bromides with iron and strychnine in the case, bromism having shown itself. Dr. Hammond reports two cures with bromide of zinc, on which he mainly depends, electricity having failed in every case in which it was tried.

Ulcerative Endocarditis .- Dr. Sutherland exhibited the heart, and a portion of the right lung, from a case of ulcerative endocarditis. Patient, a man aged 35, came to the out-door department of the Hospital, complaining of being out of sorts, and said that three months ago he had been on a spree, and had slept on a bench in Central Park, and there caught cold. At the hospital he was found to be slightly feverish, and was persuaded to go to bed. While the nurse was getting a bath ready he fell back and died immediately. On the endocardium of the left ventricle was a cauliflower excrescence, one inch long, and projecting about a quarter of an inch. There was also a similar, but older, looking excrescence on one of the aortic valves. Throughout the lungs were several small ulcerating cavities.

Ovariotomy; large Tumor .- Dr. TRENHOLME exhibited an ovaraian sac, removed from a lady at Levis, on the 31st August. The sac and its contents weighed over 70 lbs. This is the fourth operation since the last Society meeting; all the three previous patients made a good recovery. There was excessively firm adhesions of the sac to the abdominal parietes, intestines, diaphragm and liver, so strongly adherent that the sac had to be peeled off by reaching the posterior part, and then working it off toward the front. The sack was also very friable, and in great part had to be removed piece by piece. This multilocular tumor had been repeatedly tapped, and was a good illustration of the bad effects of such treatment. The patient, though very feeble and exhausted, bore the operation well; and when Dr. T. left her, thirty hours after the operation, her pulse and temperature were almost normal, and she was feeling well and cheerful. There was very little tympanitis; but on the fifth

day vomiting set in, and inability to take nourishment. Though the vomiting was not severe, the patient gradually failed, and died on eighth day.

Dr. C. A. Wood then read the following paper on a

CASE OF CEREBRAL SURGERY.

I have made the presentation of a case of brain wound occurring in my practice the excuse for saying something to you about those recent advances in cerebral surgery that have excited so much interest both in this country and abroad. For example, it was generally admitted that Prof. Victor Horsley's paper on this subject, to which I shall refer later on, was the most valuable contribution made to the surgical section of the British Medical Association during its late meeting in Brighton, and we have also daily evidence of the increasing interest in the surgery of the brain from the continual reference to it in our periodical medical literature. Of course, I need hardly say that those with hospital and other extensive opportunities are most competent to give opinions of value in this department of surgery; and I trust my paper will at least be the means of eliciting expression of opinion from gentlemen present who have the best right to speak. For the notes of the case, I am indebted to my friend, Dr. Hutchison, who had charge of the patient during my absence from the city, and who saw him almost daily during the entire illness:

R. R., aged 4 years and 2 months, was running across the street with a pea-shooter, about 18 inches long, and 3/8 inch in diameter. He fell, and struck his head against the end of the tube held upright in his hand. The hollow cylinder passed through the left lower eyelid, and entered the orbit about a quarter of an inch from the margin, inflicting an injury to the brain itself. The tube entered 23/4 inches, and was with difficulty withdrawn by a neighbor, who, we afterwards learn, noticed upon the end of it some putty-like substance, mixed with blood. The accident occurred on the 10th May, about 10 o'clock, and he was first seen a few minutes afterwards. Child unconscious; extensive contusion of tissues surrounding wound; left pupil dilated, with no response to light. Right pupil is normal, and responds to light. Pulse very weak and slow, and vomiting almost constant. Respiraation slow and labored. Dr. Wood took charge of patient at 10.30 A.M. There was then no response to light in either eyes, the left pupil dilated and immovable, child pale and restless, and the vomiting had ceased. There is slight proptosis. There was complete motor and probably sensory paralysis of right side, and convulsive movements of upper and lower limb, these movements being chiefly marked in right arm. The convulsions continued all day, and for a short time before they ceased there was simply spasm of right arm. At 9 p.m., right eye responsive to light; no convulsions; no return to consciousness; temperature 100 ° F.

May 13th.—Patient has remained in about the same condition since last note, but now shows signs of returning consciousness. Takes food with some difficulty, and when asked will protrude tongue, whose deviation to right side is marked. Bowels moved by enemata.

May 16th.—Eyes examined by Dr. Proudfoot. There is a slight serous and bloody discharge from the wound; the conjunctiva is much inflamed, and protrudes over the margin of the partially everted lid; the soft parts about the eye are greatly swollen and discolored. The apparent protrusion of the eyeball about the same as day of injury. Morning temperature 101½° F. The inflamed conjunctiva was incised, and the wound kept open by cotton drain. A week after the accident, there is a slight return to consciousness; pulse 150, temperature 101½° F.

May 18th.—Temperature, 9 A.M., 103 ° F., pulse 150. There is no discharge from the wound. No vision in right eye. Child partially comatose. Requested permission to have wound opened for purpose of drainage, but it was refused. Child's condition worse.

May 19th.—Morning temperature 103°; evening 104°. Restless, head extended and drawn to right side, muscular spasm being so great as to prevent its being drawn forward.

May 20th.—Temperature at noon 105°. Ordered 5 grs. quinine. Patient unconscious.

May 21st.—Dr. Proudfoot again saw the patient; made an incision over site of wound, introduced drain, and applied poultice. On the 22nd, there was a slight discharge of sero-pus from the wound, temperature fell to 103, and child became more conscious.

May 24th.—The discharge continues, but the temperature is 104°, and child's condition unimproved. This state of things continued until the 29th, when the child died comatose. To the great regret of Dr. H., he was unable to obtain a postmortem.

There seems to me to be little doubt, however, that the track of the wound, after piercing the left lower lid, extended from a point, midway between the outer and inner angles across the floor of the orbit, injured and possibly destroyed the optic nerves, caused protrusion of the ball, passed through the roof of the orbit close to the sphenoidal fissure, and entered the brain at a point in the frontal lobe, at its base, close to the fissure of Sylvius. With the exception of the monobrachial spasm, one could hardly further localize the injury. To suppose that the point of entry was through the sphenoidal foramen would be to admit injuries to the middle cerebral arteries and other structures at the base of the brain, inconsistent with the course which the injuries effect subsequently pursued. As Gowers points out violence to the cerebral substance in the region of a motor centre will produce symptoms which are usually referable to lesions of the centres themselves. That the child died of septic meningitis appears to me to be also probable.

The question that naturally arises in a serious brain-wound of this sort is, "Will any operative procedure be of use?" When Dr. Proudfoot first saw the case with me I urged the propriety of treating this injury as I would have done any other deep puncture. Here we had a penetrating wound of the orbit involving the brain, and my idea was to remove the useless eyeball, and to attempt to set up at once direct drainage from the deeper parts of the wound after it has been thoroughly cleansed and injected with a fairly strong antiseptic solution. would then have dressed it after the strictest antiseptic style and waited results. The parents, however, refused to permit this, and Dr. Proudfoot was not, I think, very enthusiastically in favor of the scheme. And yet, while I am not given to talk about what might have been, I am now, knowing the results which followed the wound, perfectly satisfied that such a course would, under the circumstances, not only have been justifiable, but that in the light of recent knowledge have been the proper course to pursue. As in other situations, the dangers of deeply penetrating wounds are sepsis and inflammation. Here we had a case where the patient lived nearly three weeks after the injury, so that death was not caused by the first and direct shock, but probably by the train of evils brought on by septic material conveyed into the brain and along the whole track of the wound, causing inflammation of the meninges, and possibly of the nervous matter itself. Septic absorption soon took place, the products of the inflammatory process were unable to find vent, and, further absorption occurring, death was of course inevitable. That the plan of ample and direct drainage with antiseptic dressings in brain injuries is crowned with success in apparently hopeless cases, and that recovery would not otherwise have taken place seems, to me to have been amply illustrated in recent years. This disregard of the noli me tangere rule which has so long obtained with most of the internal organs, is now affecting the chief nervous centres, and no one can place limits upon the extent to which it may yet be carried.

As the subject is one of great interest to me, I should like to make a part of the paper the test for remarks which will bring out a discussion of these recent advances in cerebral surgery, and, if you will per mit me, I will say something about them. Of course, as everybody knows, bold and successful deeds in brain surgery were not unknown to the older surgeons; but they were, when they occurred, classical exceptions to the rule that such treatment of the cerebral structures was in the nature of things fatal. From the time when Dupuytren plunged his knife into the brain and opened a cerebral abscess, giving relief to the symptoms and leading to the ultimate recovery of the patient, many surgeons have successfully imitated him. So, too, do we find many cases of severe brain lesions doing well under the older surgeons; but there are just two factors in these cases which make the chief differences between the older procedures and the surgery of the present day-Ist, more accurate diagnosis, and, andly, antisepticism. A better definition of the situation, extent and character of a cerebral wound abscess, tumor (whatever it may be), is possible in our time, chiefly because of the works of men like Brown-Sequard, Hughlings Jackson, Prevost, Gowers and others.

All observers agree as to the special value of the antiseptic method in dealing with lesions of the brain. Packard says that wounds of the brain heal readily when secondary inflammation does not set in; and in speaking of their treatment, places great stress upon the employment of antiseptic dressings. Hughes-Bennett's celebrated case of brain tumor, reported in the British Medical Journal, for May, 1885, would have done better, said the operator, Mr. Rickman Godlee, if stricter antiseptic measures had been preserved. In a very clearly written article upon trephining (see Annals of Anatomy and Surgery, No. 3, Vol.

VIII), Dr. H. B. Sands thus insists upon the special value of antisepticism when the brain is involved: "Aside from those cases," says he, "in which the brain has suffered irreparable damage, I think that in future many successes will be obtained by careful antiseptic treatment of the wound, such as recommended by Lister in the management of compound fracture of the bones of the extremities. The most scrupulous cleansing of the wound, the arrest of the hemorrhage, the removal of foreign bodies, loose fragments of bone, and of detached portions of brain matter, if present, followed by proper drainage and dressings, is, in my judgment, the only means which, with our present knowledge, promises any benefit in this nearly desperate class of cases."

After one has borne in mind that trephining is now commonly resorted to for the opening of cerebral abscesses, for epilepsy-of the Jacksonian variety usually-where a traumatic cause can be assigned, that it was proposed by Gross, in 1873, and I think has been resorted to since then, for the relief of purulent meningitis, there remains another modern occasion for its performance which I shall close by speaking of. The attempt to remove a cerebral tumor by cutting down upon it after trephining was first made in November, 1885. From the article on brain tumors in Pepper's System, written by C. K. Miles and Hendrie Lloyd (the most concise treatise on the subject that I know of), a short account is given of this remarkable case, which may be taken as a type of hundreds of others known to medical readers. " Four years previous to death patient received a blow on left side of the head. A year later, twitching in tongue and left side of face. Later, twitching of left arm. Twitching increased, paroxysmal spasm, and general convulsions, with loss of consciousness. Paresis, and then slowly-developed paralysis of the fore-arm and arm. paresis of left leg. Double optic neuritis and violent headache." This patient was under the care of Hughes-Bennett, at the London Hospital, for Epilepsy and Paralysis. He diagnosticated brain tumor, and suggested its removal. Rickman Godlee trephined over suspected region, and removed a glioma, the size of a walnut. The patient did well until a month after, when hernia cerebri supervened, and he died.

Mr. Victor Horsely, the Prof. Supt. of Brown Institute, in his paper, told how the brain was searched in a similar way in three instances, all of

which recovered with distinct relief from the symptoms. The patients, who had epileptic attacks of varying degrees of intensity and frequency, were, in consequence of them, absolutely unable to do any kind of work, and their lives were made miserable.

The chief points of interest lay in the attempt to simulate the symptoms in monkeys by irritation of their motor centres. The epileptic seizures, the muscular spasms, the convulsions, the paresis,—all were successfully imitated by vivisection so as to demonstrate, by a plan not likely to be called in question, the exact situation of the human cerebral lesion. The wound in the scalp was made by a semi-circular sweep of the knife, as opposed the crusial incision usually made, Mr. Horsley thinking that healing took place more quickly afterwards, and better drainage was in this way obtained. He laid considerable stress on the advisability of cutting through the brain structures parellel to the direction of the sulci, and said that hemorrhage was best arrested by filling the wound with a soft antiseptic sponge. To secure success, it was advisable to adhere strictly to the antiseptic plan throughout. The patients were exhibited, and in every case the motor and sensory disturbances were either entirely cured or so relieved that they were able to live comfortable and to do work. As Dr. Broadbent remarked, in his address before the medical section of the British Medical Association, medicine and surgery are brought into specially close relations in these matters of celebral tumors and lesions, which are medical as regards diagnosis, but surgical as far as effective treatment is concerned. So far as we yet know, brain tumors and other irritants of the cerebral centres, to be capable of sufficiently accurate diagnosis as to permit of their removal with success, must be situated in the motor zone; they must not be too large. must be single, must not be too deep-seated, and must not be malignant. This may narrow the field down to a small array of cases; but, in the meantime, while a more extended study of the cerebral functions will probably make diagnosis more easy and certain, it is something to have made worth living even a few lives, otherwise doomed to hopeless misery. It may fairly be claimed, also, that the chief bugbears of the surgeon are secondary inflammation and sepsis-insurmountable obstacles they would be even if we could localize cerebral tumors with the most positive accuracy; these are

now guarded against, as we guard against them in other departments of surgery, by following the common-sense rules of the antiseptic system.

Dr. Shepherd said that McEwen of Glasgow had implanted again the piece of bone removed by the trephine, previously breaking it into fragments, a good recovery following. Dr. Shepherd mentioned a case under his care in the hospital, where a man had been kicked by a horse, fracturing the bones of the skull in such a manner that one piece was overriding another; no symptoms following, he sewed up the external wound, a slight pad and bandage being placed over all. In about ten minutes the man had an epileptiform convulsion; pressure being removed, he got well and recovered completely. Another case, a man, had his frontal bone crushed in from a fall of 40 feet. He remained insensible for a few days, but got perfectly well. The wound was cleansed with solution of bichloride of mercury and iodoform gauze applied.

The CHAIRMAN said that Horsley laid great stress upon removing brain substance where it appeared to be affected, particularly in removing brain tumors.

Aneurisms of the Aorta.—Dr. Kennedy said he had been recently asked to be present at a post-mortem examination of a man who died suddenly. The skin was yellow. There was fatty degeneration of the liver. The right lung was collapsed, and that side of the chest filled with blood from the bursting of a large aneurism of the descending aorta. A second aneurism also existed of the abdominal aorta. Dr. Kennedy understood that aneurism had never been diagnosed during life.

Dr. Geo. Ross said that nearly eighteen months ago he had treated this man for aneurism, and with relief to the symptoms. He gave him iodide of potassium, with rest. When first seen, the man complained of rheumatism of left shoulder-blade; the pain was severe and neuralgic. He made out no bruit from the aneurisms, but downward a double, soft basic murmur. When last seen by Dr. Ross (last spring), the man was taking morphia for the relief of the intense backache.

A case of true Scurvy; death, with obscure brain symptoms; a large blood-clot found in the right temporo-sphenoidal lobe.—Dr. R. L. MAC-DONNELL related the case as follows: W. P., a farm-laborer from the Eastern Townships, was admitted to the Montreal General Hospital, Sept. 18th, 1886, complaining of general debility and of the

presence of an eruption on his face, and the upper part of his body. Two years ago he had rheumatism, and for several years has had a slight cough. For the last 12 months his diet has consisted exclusively of bread and butter, milk, tea, sugar, no vegetables except potatoes, and no meat whatever, either fresh or salt. About the 15th of July last he began to feel weak, drowsy, and indisposed for work. A slight cough was present, with blood-stained expectoration and frequent epistaxis. The gums then became soft, tender, and prone to bleed easily; some slight ulceration being also present. Spots and patches of "blackland-blue" like bruises appeared first upon the egs, subsequently over the whole body, more especially on the chest, where the largest patch was about three inches in diameter, the smallest, the size of a pin's head. At this time his general strength was fair and his appetite good. There had been but one syncopal attack, and that occurred the day after his admission to hospital.

Present condition.—Emaciation considerable; his usual weight being 160 lbs., he weighs at present but 133 lbs. Skin dull and pasty; eyes sunken; mucous membranes anæmic. In the mouth, more especially upon the palate, there are several petechial extravasations under the mucous membranes. The gums are pale, spongy, receding, and ulcerated at the edges. Over the body generally there are numerous small purplish patches, but no large bruise-like surfaces as were formerly said to exist. Examination of lungs negative. There was a well-marked systolic murmur heard with maximum intensity at apex, also at base, and for a short distance towards the left axilla. The urine was pale in color, with little or no deposit on standing; no albumen, no sugar. The blood cells number 21/2 millions to the cubic millimetre.

Treatment.—The patient was kept in bed and placed upon the full hospital diet, with extra vegetables, lemons and other fresh fruit. An iron and quinine mixture was ordered.

Sept. 22.—Patient fainted this morning, and afterwards had a slight chill. Severe frontal headache set in, accompanied by obstinate vomiting. At mid-day the pulse was 66, and weak; extremities cold; rather stupid, but not comatose; no paresis perceptible. Ordered hot bottles and a stimulant. For the rest of the day the condition did not improve, and at 2.30 A.M., on the following day, died without showing any evidence of unilateral disease.

Post-mortem appearances.—Large hemorrhage into the right cerebral hemisphere, under the aternal ventricle. Hemorrhagic infarcts in both lungs, especially the right. Sub-pericardial hemorrhages, especially over the left ventricle. subcutaneous hemorrhages. Body well nourished, warm, rigor mortis commencing; a number of commencing petechiæ and vibices chiefly on the front of the chest, belly and legs. There was nothing abnormal found in the abdominal cavity beyond that the bladder was very much distended. Thorax-Heart: Left chambers empty and contracted; the right full and dilated. The natural heart muscle can hardly be seen, owing to the many extensive hemorrhages under the pericardium. Lungs: The right shows many infarcts, which appear recent, the largest, at the base of the lung, measures 134 inches. The whole posterior part of the lung is ædematous and passively congested. The left is in a similar condition, but there are fewer infarcts. No subpleural effusions, and very little serous fluid in the pleuræ and pericardium. The aorta in no place bloodstained. Brain: In removal, the saw opened a cavity in the right hemisphere, whence blood and broken down brain matter, in no way altered or decomposed, made its escape. There was no subdural or subpial hemorrhages, and a careful dissection showed that the ventricles, though full of blood and serum, had escaped; but under the right lateral ventricle there is a large cavity, with ragged walls, occupying the whole of the right temporo-sphenoidal lobe, extending forward into the frontal and back into the occipital lobe; the lower part of right hemisphere is reduced to a mere shell; the upper part above the ventricle intact. All parts of the brain are unusually vascular.

Dr. R. J. B. Howard exhibited the heart, right lung, and brain and described the post-mortem appearances.

Dr. Gurd asked if this could not be a case of simple purpura hemorrhagica.

Dr. Smith said it was unusual to see scurvy in a person living upon the diet said to have been used by this patient. Sailing vessels were not bound by law to carry lime-juice if they had potatoes.

Dr. R. L. MacDonnell thought the whole history of the case pointed to its being scurvy; and Dr. Howard said that the post-mortem examination gave evidence of this disease.

Correspondence.

LETTER FROM VIENNA.

Editors CANADA MEDICAL RECORD.

DEAR SIRS:-In a previous letter I spoke rather enthusiastically in favor of that centralizating system of teaching which one finds in Berlin as contrasted with the divided clinical opportunities to be met with in London. This characteristic of the Berlin Faculty is even more plainly marked in the University of Vienna, and in just so far it is superior to any other medical teaching centre with which I am acquainted. Partisans of other schools and systems, while admitting the advantages of a practically unlimited supply of material for clinical purposes, deny the superior excellence of such didactic teaching as is comprised in the courses of the Wiener Universität. I am not in a position to give an opinion upon that question; but it seems to me that the value of a course of lectures is largely determined by the presence or absence of such illustrations as may be drawn from the wards or dead-house of a large hospital. Without going further into this question it will be sufficient to indicate the advantage of producing in a set course of lectures upon, we will say, eczema, examples of the many varieties of this disease, only to be done in such immense institutions as the Vienna hospitals by lecturers possessed of power held by the professors in the German and Austrian universities. The Allgemeine Kraukenhaus is a group of two-storied, old, and unimposing buildings, arranged about the four sides of several courts, and containing about 3000 beds. Within the grounds of this immense hospital are the meddical, surgical, obstetrical, special and private wards, the buildings devoted to the administration, the lecture rooms of the different professors and assistants, rooms appropriated by privat docents kliniks of attendants, the pathological institute, museums, refreshment department and all the paraphernalia of teaching the divine arts of medicine and surgery.

It is practically a State Hospital, for the outlying municipalities send patients to it; and they, with the central government, furnish the large sums necessary to keep it in efficient working order. I have said that the buildings are old; I must add that from a sanitary point of view they are not specially healthy, but in these days of antisepticism the grosser forms of "dirt" do not cause

that amount of apprehension which they formerly did. One influence, however, must not be overlooked both here and in Berlin, and that is the privilege possessed by convalescent patients of going out into the court-yard garden to meet their friends. This continual out-door communion, in a tree-covered garden, with those the patient most loves, and the chance of doing it as soon as he can walk or be carried out, is an influence not to be despised. How far the further privilege of buying beer (to be drunk upon the premises) from the refreshment booth close at hand operates for good to the patient it is not easy for an outsider to judge. To these cafés in the court-yard repair patients, nurses, students and visitors; beer and light wines are bought and drunk just as in any other café of the city; and all is lovely. It must be remembered that the Austro-German appears to live mainly for beer. He does other things besides the drinking of beer, but he does nothing else with the same thoroughness and the same complete satisfaction. One must understand this before he wonders greatly at the existence by authority of a beer garden attached to the largest hospital in the world. In a general way what I have said in a previous letter with reference to the Berlin Medical Faculty is also true of Vienna. The professor of each branch exhibits the didactic course proper to his chair; his assistants prepare his illustrations, assist him at his lecture or demonstration, and in his absence deliver his lectures for The institution of the privat docent is in special force in Vienna, and here, I think, mainly lies the difference between Berlin and Vienna which constitutes the special excellence of the latter. There are privat docents, as everybody knows, attatched to all German universities; but it is here in Vienna that they are most numerous and most useful. The function of the privat docent resembles more that of a tutor than a professorial assistant. He is appointed by the University to teach some particular branch which he does by the formation of classes. In the Medical Faculty he has certain teaching privileges in the Kraukenhaus; and may, for instance, set up a klinik for that purpose. In this way he establishes a claim upon vacant assistant professorships in Vienna, or to a higher dignity in some minor faculty. The great goal to which the ambitious privat docent aspires is a Vienna professorship, and I believe the system now in vogue there ensures, as much as any system can, the appointment to professorships of

the men best qualified to fill them. To return to the question of learning his art, the student in medicine, having made up his mind what courses he wishes to pursue, will find little difficulty in joining at almost any season of the year (except in midsummer) classes for the study of the chosen subjects. It has been stated to me, and I have reason to believe, that a man can study by these means any subject whatever in the whole range of medicine and surgery, and that full instruction with adequate illustrations when feasible clinical demonstrations can be had at almost any time in Vienna. That is to say this system of semi private instruction is so extensive that one is practically independent of the regular university courses which, however, the wise and prudent student will in no wise neglect. Here, as in Berlin, most, the best, tutors understand our language, but the English-speaking student who learns German is in a much better position to appreciate the medical advantages of the Great Austrian school and hospital than he who relies entirely upon his knowledge of English.

The Vienna Faculty includes a brilliant array of names, and among the assistants one finds some who are equally as well known as are the professor themselves.

Foremost of all stands Billroth, the world renowned surgeon, gifted apparently with perennial youth. I saw him remove by a combination of enucleation and incision several sub-peritoneal, uterine fibromata, and one large submucous fibroma. The wounds in the uterus were stitched up, the abdominal opening in the peritoneum, the muscular layer and the skin were all separately dealt with, and strict antiseptic precautions (no spray) were observed throughout. The operation lasted an hour and a half, the anæsthetics employed being a mixture of absolute alcohol and ether, of each one part, and chloroform three parts.

Although, on account of the case with which special courses upon almost any subject or any department of a subject can be obtained in Vienna this city offers many inducements to specialists. Vienna is as little the home of specialism as London. It does not follow that because a man is a surgeon, teaching some special branch of this important subject, he should restrict himself to its practice. It seems to me that there is no natural distinction made in surgery between the various abdominal organs, and why a surgeon's ability to perform cholecystotomy should unfit him for the

performances of hysterectomy is one of those mysteries not to be pierced by the average eye of wisdom. That the ability to diagnose and treat new growths present in the female pelvis should unfit the surgeon for similar work in the male cavity, is another one of those paradoxes that the profession in the new world is responsible for. There does seem to be many reasons why the division into surgical and medical departments of our profession should finally become general in America. It works well in England, and the lines that divide the one from the other are natural and not arbitrarily placed, but it seems to me that the present craze for emasculated specialists is likely to work harm to the interests of the public whose trusted servants we are, and that respectable body of which we esteem it an honor to form a part. Of course the subject is too broad to be argued here, but, as far as I could learn, the feeling among those well calculated to speak, both in England and in the German cities I have visited, the disposition is plainly to deprecate that sub-division of general work of which we have had so many illustrations in our own country. The pathological work in which I was particularly interested is well conducted. The Pathological Institute is a large new structure, whose architectural arrangements are more in keeping with the other beautiful and imposing University buildings of the Austrian capital than with the low and antiquated structures of the Kraukenhaus which surround it. too, is the bacteriological laboratory, by no means as complete or as extensive as that of Koch, but capable of accommodating many students. I left Berlin the classes of that teacher were in full blast; but here, in common with those in most other branches, the overpowering heat is making itself felt, and every student and teacher who can get away is thinking of his summer holidays. We were shown a large number of gelatine cultures, liquified and so rendered useless by the extremely high temperature, a sufficient reason, it appears to me, for a sessional repose from bacteriological work.

I suppose it is only right to consider everything in comparing the merits and demerits, as medical centres, of Berlin and Vienna. With this object in view the reader must be reminded that from its southern position Vienna is a much hotter city than Berlin; and a residence for work in the former city, during the summer months, is not usually pleasant, while in Berlin the summer is generally

delightfully cool. They tell me, also, that if the student will live like an Anglo-Saxon christian and not lead the life of an Austrian barbarian, it will cost considerably more in the southern capital than in Berlin.

Not only for its bearing upon the subject of antisepticism in general, but also on account of its special reference to the obstetric use of antiseptics, the record of the great lying-in department of the Kraukenhaus is extremely valuable. In one of the oldest and dirtiest buildings of this collection of hospitals an immense number of women, chiefly of the lowest class, are yearly confined. The previous history of the institution had been one of puerperal fever, septic poisoning, prolonged convalescence, and a high death rate-all attributed to every conceivable cause but the correct one. But now all but the malhygienic building itself is changed. The spray is not employed; nor are vaginal douching, bandages or napkins permitted; but the linen is changed a dozen times a day, if need be, to present always a perfectly clean and absorbent surface to the discharges. Iodoform is blown over the vulva and between the labia. patient gets up early, and the results of this treatment are simply surprising. The forceps are sparingly used, but version seem to be a common operative procedure. Ephemeral fever is uncommon; and when discovered is regarded as a proof of the presence of septic matter in the uterus or vagina, and the patient is treated accordingly, usually by the uterine curette and antiseptic douches. The beds themselves undergo periodical washings with corrosive sublimate and other germicide solutions, and painted often enough to ruin any ordinary lying-in hospital ("supported by voluntary subscriptions"); but what matter as long as a kind, pater nal government pays the bill? I am aware that there are sceptics who regard this dusting with iodoform and the impregnation of the wards by its sweet odor as a work of superarogation and of little value to the patient. These same authorities class it with the bell ringing and incense burning employed by those well-intentioned priests, who vainly tried thereby to drive out several severe puerperal plagues, and they hint that there are superstitions in medicine.

Be that as it may the results in this branch of the Kraukenhaus are even more decided than those of its other departments, and its methods are at least worthy of a trial by such of our own institutions as can afford the expense.

I must not forget an encroachment upon the liberty of the subjects possible only under an autocratic government like that of Austria. Should the temporary possessor of an "interesting" case decide to leave the State hospital and obstinately persist in his determination long enough to die outside of it; the professor of pathology has the legal right to order his body to be brought back to the post morten room of the Pathological Institute, there to be dealt with in accordance with the dictates of his pathological conscience. This law is, I think, to me, of almost any case likely to be of special interest to science. There are no such additions as "the friends could not be prevailed upon to permit an autopsy." "I regret that I was unable to obtain a post mortem" in the report book of the Austrian professor. "Once a patient always a patient" should be the motto of the Allgerneine Kraukenhaus. Here as in Berlin the favorite germicide is corrosive sublimate, and it is used in large quantities at all operations. Absolute cleanliness as regards the patient himself, his immediate surroundings, the person of the operator, and his assistants and dressers, absolutely clean instruments, dexterity in operation—these are among the means employed in operations; and outside of them I do not honestly think there is much room to sing the praises of the murder of micro-organisms. Armed with such instruments the German surgeons have accomplished wonders-have interfered with organs but a short time ago believed to be beyond the reach of surgery, and have brought the death rate of the most daring surgical feats to that of the most ordinary operations. Coincident with this treatment of wounds antiseptically is the fact that the name of Lister is as well known and revered by the Southern Germans as one of their own professors.

I did not intend to write at such length when I first began; but as I cannot promise you another Vienna letter I fear I must close without more than a mere mention of names that deserve a wider notice—of the veteran obstetrician, Carl Braun—of his brother Gustav, almost as well known—of the eminent syphilographer Kaposi, of Späth, Nothnagel, of Albert (the German with a French name who looks like a western Yankee), and a dozen others—all professors in the Wiener Universität. Only he who has breathed the air of the Kraukenhaus can understand the reverence (almost amounting to an apotheosis) with which the University professors are regarded. No German outside of the

charmed faculty circle would think of perpetrating an act of familiarity against one. No one at a klinik would speak to one without first being spoken to by him. One day, after Billroth had finished a very tedious and very difficult operation, an enthusiastic and rather "cheeky" American (a professor in some small medical school out west) walked up to him and clapping him on the back said in a very audible tone :" I say, Professor, you did that real well." I do not know whether the United States citizen is aware even yet of the enormity of his offence, but he must have suspected from the ominous silence that followed his remark that there was something wrong somewhere. Therage for practical work and for clinical instruction being the special feature in the Viennese school, one is not greatly surprised to find all sorts of devices whereby that desirable end can be attained. For example, on payment of 60 krentzers per hour, one can obtain the services of a woman who has lost or contrives to conceal the reflex irritability of her larynx, stomach and throat, on which to practice the various processes in laryngoscopy and pharyngology, washing out the stomach, etc., etc. She also carries a bag containing the necessary instruments, and will even aid the tyro in his efforts to learn their use! Many Canadians and other Americans are here. I am specially indebted to Dr. J. C. Cameron and Dr. Duncan for acting the part of cicerones. I hope to be sufficiently revived by the sea air of Brighton to send you some account of the annual meeting there of the British Medical Association.

WIEN, 23rd July, 1886.

Progress of Science.

THE TEST FOR ALBUMEN IN THE URINE.*

In a Clinical Lecture, delivered at the Philadelphia Hospital, Professor James Tyson, Physician to the Hospital, and Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, says: I shall to-day fulfil a promise made some time ago, to devote a lecture to a consideration of the test for albuminuria, with especial reference to certain more delicate tests recently proposed.

To begin, I shall first show you the ordinary heat test for albumen in a specimen of urine which contains a considerable quantity. It is a property of albumen to be thrown down by heat, provided

^{*}From The Polyclinic, for July, 1886.

the form in which it is present is neither acid albumen nor alkali albumen, which are respectively combinations of albumen with a small amount of acid and alkali. In this urine a precipitate follows the application of heat. As most of you know, phosphates are also thrown down by heat in a neutral or alkaline urine, but they are redissolved by a small quantity of any acid. Such addition does not, however, in this instance, cause solution of the precipitate, and it is therefore albumen. A possible source of acid albumen is this—if it should happen that there is the least quantity of acid in the test tube, to which albuminous urine is added, a combination takes place, and acid albumen is produced which is not precipitated by heat. While heat does not throw down acid albumen, nitric acid always does; and if the test is applied in the way which I shall show you, it is not likely that any significant amount will be overlooked.

Now let me show you the defect of the ordinary method of testing. This urine is alkaline in reaction, and although it may contain considerable albumen, there will be no precipitate on the application of heat, for albumen is not precipitated from an alkaline solution, unless there be a large amount present: I apply heat to this specimen of alkaline urine, and, as you see, there is no change in its transparency. I add a few drops of acid and still there is no precipitate. We have, therefore, again a urine which is albuminous, but in which the application of heat and acid fails to show the presence of albumen. Let us not, however, conclude too hastily against the delicacy of the test. The quantity of albumen in a given specimen may be so small as to give no immediate response to heat and acid, when by waiting a little while the evidence will be plain. The quantity may be so small and the little flakes which are precipitated so fine, that they do not appreciably affect the transparency of the urine, and cannot, therefore, be at once recognized by the naked eye, but if time be allowed flakes to aggregate and fall to the bottom they can be recognized in mass. In testing for such small quantities of albumen it is essential that the urine should be perfectly clear. Under ordinary circumstances, it will filter clear through one paper, or, if not then clear, the process may be repeated. But sometimes you find a urine that will not filter clear when thus treated. Under such circumstances, liquor potassæ or liquor sodæ may be added, the urine warmed and then filtered. The phosphates are thus precipitated in such shape that they can now be filtered out, and bacteria, which also contribute to the diminished transparency, are removed at the same time. If a perfectly clear urine, treated with heat and acid and set aside for six hours, is still perfectly clear, we may conclude that there is no albumen in it. But if a precipitate is found, does it necessarily follow that it is albu-Not necessarily. It may be one of the three things: nitrate of urea, which may be precipitated from a highly concentrated urine, acid urates, or albumen. But if the precipitate consists | of nitrate of urea or acid urates, it will be redissolved on the application of heat. If it is albumen, on the other hand, the little flakes will again be diffused throughout the liquid, but they will not be dissolved. Used in this way, the test with heat and acid is much more delicate than is ordinarily supposed. This specimen of urine, which we have just tried, and which immediately after the application of the heat and acid was perfectly clear, is even now less transparent than it was a few minutes ago.

Another well-known test for albumen, which is sufficiently delicate for ordinary purposes, and one which is very useful in association with the heat acid test, is pure by Heller's or the contact method. Although this is commonly believed to be a very delicate test for albumen, it is not nearly as delicate as the heat and acid test. When used in connection with this test, it serves as an excellent control test for such albumens as although present in large amount, escape the heat and acid test on account of their combination with an acid or alkali. applying this as well as the other contact tests for albumen, a short and narrow tube should be selected. If the tube is large, it takes longer to put in sufficient quantity of urine, and if it so long, the urine which is poured upon the acid acquires a momentum which causes it to bury itself in the acid. I place a convenient quantity of acid in the bottom, and carefully pour upon it a portion of the specimen of urine, containing a small quantity of albumen, the presence of which was not immediately apparent by boiling and subsequent acidulation. There can now be seen at the junction of the two liquids a white line, which is precipitated albumen.

Are there any sources of error to be guarded against in using this test? There is at least one, based upon the fact when a urine is highly charged with acid urates, these will be precipitated when nitric acid is overlaid with it. This precipitate is, however, easily distinguished from that due to. albumen. The latter remains sharply defined between the urine above and the acid beneath, while the former rises in the course of a minute or two above the contact line. Again the acid urates are also readily dissipated by a gentle heat applied at the line of junction. More recently I have used almost exclusively instead of the nitric acid another reagent which is at least as delicate and more pleasant to manipulate. I refer to the acid salt or acid "brine" solution suggested by Dr. Roberts, of Manchester. This consists of a saturated solution of common salt to which five per cent. of hydrochloric has been added, and the whole filtered. Using some of the same urine, I first pour into the test tube some of the acid brine solution, and overlay it with the urine, and again you see a perfectly distinct white line. This test is valuable in association with the heat and acid test for the same purposes as the pure acid test. Neither it nor the acid detect as small quantities of albumen as the heat and acid combined,

During the past two years a number of new test have been introduced, or rather a number of old test have been revived, by which smaller quantities of albumen can be detected. Among them are the following:

Picric acid, the double salt of the potassioiodide of mercury, picric acid with citric acid, sodium tungstate and citric acid, ferrocyanide of

potassium.

As the last is the least delicate of these tests, I shall speak of it. It is more delicate than the acid brine or the pure acid test, but not so delicate as the heat and acid tests used as I have suggested. It is applied by the contact method. It has this advantage over the other tests of this class, that it does not precipitate peptones. It does, however, according to Dr. Johnson, precipitate mucin.

One of the most delicate of these tests is picric acid. A saturated solution is employed, but as picric acid is very light it is not always easy to use the contact method; sometimes the picric solution will be lighter than the urine to be tested, while at other times it will be heavier. In order to most easily employ the overlaying method, it is essential that one of the liquids employed should be decidedly heavier than the other. The difficulty referred to is experienced in testing this sample of urine. The picric acid is of about the same specific gravity as the urine, and diffuses itself rather rapidly through it; but at the same time we notice a distinct white line indicating the presence of albumen. This difficulty is readily obviated by an expedient, which certainly does not diminish the delicacy of the test; while it is held by some that it increases it, and that is the addition of critric acid to the picric acid solution. This solution is prepared by adding to one ounce of a saturated solution of critic acid. This makes the test fluid heavier than albuminous urine is likely to be. Placing some of the solution in the test tube, I pour on it the urine, at opposite side of the tube to that on which I poured the picric acid. This is done because the small quantity of picric solution adhering to the side of the tube gives the urine an intense yellow, which is not desirable. We again have the white line, which is as distinct, if not more so, as that obtained by using pure picric acid.*

There are certain disad antages of the picric acid with or without the citric. One of these is that the color of the urine sometimes so closely approaches that of the picric acid that there is some difficulty in determining the line where the two join. This is, however, not a very serious objection. A more serious one is that quinine and the vegetable alkaloids generally are similarly precipitated; and as the former, at least, is often administered in such

quantity as to appear in the urine, the white line thus produced may be mistaken for albumen. Peptones are sometimes found in the urine, and these are also precipitated by picric acid. Alkaloids and peptones thus precipitated are promptly dissolved by the application of heat. Finally, the acid urates are precipated by picric acid as they are by nitric acid; but these, again, are redissolved by a moderate degree of heat.

The next test to which I shall refer is the potassio iodide of mercury, which, if properly prepared, is about as delicate as the picric acid test. This test, which was discovered by Mr. Charles Tanret, a French chemist, consists of bichloride of mercury, 1.35 grammes; iodide of potassium, 3.32 grammes; acetic acid, 20 cubic centimeters, and distilled water enough to make 100 c.c. The double iodide of mercury and potassium solution is perfectly colorless and transparent, and is used in the same manner as the picric acid. It is subject to the same objection as precipitating peptones, alkaloids and urates, also mucin, which is not precipitated by pure picric acid. It has the advantage of being colorless, and heavier than most urines. The sodium tungstate test consist of a saturated solution of sodium tungstate and citric acid. This solution does not precipitate the alkaloids, although it does throw down peptones and mucin.

There is no doubt but that in the most delicate of these solutions, we have tests which will show quantities of albumen so small that they cannot be recognized in any other way. Picric acid and the mercuric iodide are the most delicate. But the sources of error which have been named make it necessary that they should be used with the utmost precaution. None of the objections named apply to the heat and acid test, which, when used in the manner indicated, is extremely delicate—quite sufficiently so for practical purposes. For the present we may regard the others as practically most useful for proving and confirming the results by

heat and nitric acid.

THE TREATMENT OF GONORRHŒA. *

By SENECA D. POWELL, M.D., Professor of Minor Surgery.

As we have a few minutes more, gentlemen, I will occupy the time with a brief resume of my method of treating gonorrhea. We are all more or less familiar with this disease, whether we are confined in the narrow field of the specialist or the broader one of the general practitioner.

I hope to emphasize a few points which have been made by others, and which I have reason to believe have been overlooked or forgotten by many of us. Those who are so unfortunate as to suffer from gonorrhea are, as a rule, inclined to conceal their disgrace from their family and their regular physician, and this, combined with pecuniary motives in some cases, leads them to look for aid out-

[&]quot;The disadvantage of the combined citric and pieric acid solution exists in the fact that mucin is precipitated by the nitric acid; but the same is true of acetic and nitric acids, and, as the result of a large experience, I am forced to conclude that no mistake can result from the delicate haze of diminished transparency thus produced.

[•] Lecture delivered at the New York Post-Graduate Medical School and Hospital, February 17th, 1886.

side of the regular profession, wherever they are promised a speedy cure for the malady. I shall speak of the treatment of gonorrhœa in its different stages, and endeavor to make plain what I consider the best course in each stage to pursue.

By gonorrhæa I mean any inflammation of the urethral tract which has been produced either by a specific poison or by the menstrual fluid, or by leucorrhæal discharges, for I know of no way of distinguishing a urethritis which has for its origin either the one or the other of the above causes. And it matters not what the cause of the urethritis may have been, the fact remains that one is as contagious or virulent as the other.

In the first or introductory stage, if I am fortunate to see the patient at that period, I feel moderately sure of giving speedy relief. I begin the treatment by giving a free purgative, preferring those drugs which act upon the lower bowel rather than a saline cathartic. If the patient has not an excessively sensitive stomach, an emulsion of castor oil, combined with a small dose of spirits of turpentine, (3 i) acts well and thoroughly empties the entire tract. I also order two or three drachms of the bicarbonate of soda in vichy, to be taken in the twenty-four hours. Even at this early stage I have found great benefit result from frequently bathing the penis in very hot water. As an injection, a weak solution of the salicylate of soda, two to five grains to the ounce is used; but more frequently injections of hot water without any medication is preferable.

Injections should be hot.

Latterly I have aborted gonorrheal attacks in the first stage in the following manner: After washing the urethra thoroughly with Harrison's urethral syringe, I introduce a rubber canula down below the seat of inflammation, and, as I gradually withdraw it, fill the urethra with a dry powder made up of 3 i of resorcin and 3 i boracic acid, which is allowed to dissolve in situ. I repeat this each day if there be any discharge, but so far never have used it oftener than three times. If the urethra is comparatively dry the day after its application, a weak solution of sulphate of zinc, one grain to an ounce of hot water, is frequently used as an injection.

The patient is ordered to remain quiet, and, if possible, in bed, while the diet is cut down to milk and mush. The syringe which gives the most satisfaction is the small rubber syringe known as No. 1 a, and it is always best to have your patient thoroughly understand the proper manner of using it, for I find very few who are proficient in this detail, although they, as a rule, claim to know just how it should be done. I prefer this style of syringe for several reasons:

The nib or point is very short and no injury to the sensitive and inflamed mucous membrane can result from its use; and again the capacity is small, and there is less likelihood of the secretions being driven back into the urethra by a large volume of water. An injection ought always to follow urination if possible. Large quantities vichy or other waters should be taken, not only to dlute the urine but also to facilitate the more frequent use of the syringe after urination.

The second or inflammatory stage follows quickly upon the first if we have been unsuccessful in aborting the disease. In this stage we should be extremely careful not to attempt too much, for I am positive that many of the cases which have come under my notice have been exaggerated, and much serious damage has resulted from unjustifiable interference by the patient, under the instruction of those whom he has consulted. If a patient comes to me with his penis swollen and engorged with inflammatory products, the lymphatics inflamed, and the glands in the groins painful and swollen, I make no effort at medication by the syringe, but treat the inflammation locally and constitutionally as I would were it in any other

part of the body.

There is always more or less increase of tempera ture and quickening of the pulse, and I began my treatment by giving the tincture of aconite, in two or three drop doses, combined with liq. ammon. acetatis, one to four drachms every two, three or four hours as indicated. The penis is frequently immersed in hot water or wrapped in borated cotton, and kept wet with lead and opium wash. The amount of bicarbonate of soda and alkaline waters is increased, and the bowels relaxed with mercurial purgative. Just here let me speak of the use of saline cathartics. For several years I have avoided them religiously, for this reason: If there be extensive inflammation, and it goes well back in the urethra near to the neck of the bladder, the mucous membrane being very much thickened, and the calibre of the canal lessened, there is, as a rule, more or less spasmodic retention of urine, and the administration of any saline cathartic will, in a great number of cases, increase this difficulty. I have seen this not once, but many times. Be as severe in your restrictions as possible, confining your patient to his bed, if need be, and adhere firmly to your low diet. All exercise should be forbidden wherever possible. If it be absolutely necessary that your patient attend his usual duties, a well adjusted support for the testicles should be ordered. Any further interference in this stage of the disease is, in my opinion, injurious, and especially would I avoid copaiba. not only useless, but I am positively certain, harmful—increasing the discharge, the ardor urinæ and the painful erections; occasionally causing a very extensive and persistent rash, to say nothing of its effects upon an irritable stomach. When complications arise, one must be governed by circumstances. Usually the inflammation is modified in three to five days, the discharge decreases and becomes thicker in consistency, the color being whiter, the scalding upon urinating is gone, and the disease enters into the third stage or stage of subsidence.

A physician's assistance is oftener sought at this

stage than in the first or second, as its period of duration is very much longer and may extend over many months and even years; as in a case which recently came under my care, the discharge havng lasted four years. Not until after all inflammation has subsided should we use injections otherwise than as I have cited. My first recipe, upon seeing a patient in this stage of the disease, is a good cathartic; and I usually select something mild and which can be repeated every day if necessary, such as rhei and soda, or compound liquorice, pulverized. I also direct the following injection to be used every two or three hours, if convenient: Sulph. zinc, grs. viii: Morph. sulph., grs. iss.; bicarb. soda, 5 ss. to 5 i; water, $\frac{\pi}{3}$ iv.

I restrict his diet to the plainest foods. No seasoning or condiments are allowed. Coffee and tea only in moderate amount and very weak. All kinds of liquors stopped, unless my patient is an habitual drinker and is very much dependent upon his daily dram for his usual appetite and digestion. Very moderate exercise is allowable; but the use of tobacco is entirely, or nearly so, prohibited. see my patient within the twenty-four hours, and if there be no increase in the discharge or change in its character, and there are no evidences of increased inflammation, I begin the use of copaiba; and this I consider the only period wherein it is admissible. If the second stage has lasted any length of time, I much prefer cubebs, given in powder in 3 ss. to 3 i doses, three or four times a day. In other words, if the mucous membrane is changed from frequent attacks of clap, or prolonged chronic inflammation, cubebs gives the best results. I have tried about every drug suitable for an injection, and believe that sulphate of zinc ranks them all. Next in my estimation is tannic acid. I never use nitrate of silver in any form for an injection. It has proven unsatisfactory in my hands so often, that I have entirely discarded it. Injections should not be strong enough to cause any pain, and are given not only for their astringent effects, but to keep the urethra clean—this being a very important adjunct in my judgment. The lacunæ, especially the larger ones near the meatus, frequently give us a great deal of trouble by acting as pockets or hiding places for the disease, and time after time it will spring up after ceasing the use of the syringe. I have in many cases passed a canula and rod armed with cotton, saturated with the resorcin and boracic acid, as given before, and wiping the urethra thoroughly in its whole pendulous portion. The small granulations which are sometimes present are more rapidly removed in this way than even by the use of the sound.

I do not mean to imply, gentlemen, that this method of treatment is infallible, but I do say that it has given me more satisfaction and more rapid recoveries than any other.—Quarterly Bulletin of the N. Y. Post Graduate School.

THE TREATMENT OF EPILEPSY.

By W. M. Leszynsky, M.D., Instructor in Disease of the Mind and Nervous System.

I see no advantage in treating epileptics as a "class," but believe that they should be managed individually; therefore the idea of not permitting them to use starches, sugar, etc., seems unnecessary, excepting in patients where these articles are not easily digested.

As nearly all epileptics eat excessively, if not voraciously, frequently bolting their food, it is of greastest importance that their diet should be regulated with the view to restrict the amount of food, and at the same time to avoid any articles which in the experience of the patient has been found to be indigestible.

The use of the homoeopathic solution known as glonoin, one per cent., has in my hands frequently failed to produce any physiological effect. I have, therefore, discarded it, and when I wish to prescribe nitro-glycerine, I do so in the form of Fraser's tablets, each containing $\frac{1}{100}$ of a grain.

In cases of petit-mal, where the bromide alone has failed, the addition of belladonna has proved of unquestionable benefit. I believe that in many cases the use of *ergot* is a valuable adjunct, especially in those cases accompanied by hallucinations or paroxysms of mania. In cases of epilepsy due to inherited or acquired syphilis, the use of antisyphilitic remedies should not be forgotten.

If we remember that epileptics frequently die while in the condition of *status*, the importance of suitable treatment while this state exists cannot be over-estimated.

For further information, regarding the causes of death in epileptics from status, etc., I refer to a paper on the subject which is published in the New I ork Medical Journal, March, 1885. During an experience of three years, in the City Lunatic Asylum, I treated upwards of sixty patients in whom the symptoms of "status epilepticus" were manifested.

In a number of instances, where previous attacks had been known to have occurred, the administration of an emetic, followed by a brisk purge, had frequently proved successful in aborting the attack.

In some cases in the beginning the convulsions may be controlled by administration of large doses of chloral per anum; but, after the attack has fairly started, chloral seems to have very little influence, excepting to intensify the exhaustion.

The inhalation of chloroform controls the convulsions during its application, but they are only held in abeyance, to return with apparently renewed vigor, shortly after the inhalation in discontinued. The use of morphine sub cutaneously seems to possess some power in controlling the paroxysms; but it has to be injected in such large doses that it appears to have hastened the death of the patient from exhaustion.

In some cases pressure over the carotid arteries seems to have temporarily checked the convulsions at their onset.

Where marked cyanosis is present, I have found venesection of the greatest benefit, at once relieving the passive cerebral and pulmonary congestion. At the same time the ice-cap and counter irritation to the nucha had been resorted to with apparent advantage.

Owing to the frequency of dysphagia, and occasionally the complication of severe vomiting, the nutrition and stimulation of the patient, when death from exhaustion becomes imminent, are

very difficult.

Our only hope then remains in the administration of nutritive and stimulating enemata.

Nitrite of amyl, in this class of cases, has proved

ineffectual, if not injurious.

The use of this drug is undoubtedly valuable for the purpose of aborting a paroxysm in cases of ordinary epileptic seizures, where a distinct aura is experienced; but after the convulsion is established its administration invariably complicates

"The mechanism of its action is very simple; the vaso-motor spasm of the cerebral vessels, which is the initial symptom of an epileptic convulsion, is relieved, and the vessels secome dilated." following are the symptoms produced by nitrite of amyl when inhaled: "Acceleration of the heart; sudden flushing of the face; dilation of the arterioles, in consequence of paresis of the muscular layers of these vessels; a sense of extreme fullness of the brain, with vertigo; fall in the blood-pressure; lowering of the temperature."—BARTHOLOW.

During the condition of status, owing to the almost continuous tonic contraction of the muscles of the neck, the return circulation from the brain is obstructed, and venous congestion follows. This is the state which is so decidedly relieved by venesection, and where the inhalation of nitrate of amyl does positive harm. I should invariably deprecate its use under such circumstances.

Many patients have a "succession of fits" without going into the condition of status, and I regret to say that in many such instances I have witnessed the administration of amyl from the hands of the attending physician, contrary to all teaching as to

its physiological action.

BORACIC ACID POWDER IN THE TREATMENT OF GRANULAR LIDS

Dr. James L. Minor, in his paper on the use of boracic acid powder in granulated lids, gives this agent an enthusiastic recommendation in the treatment of certain forms of this troublesome disease.

METHOD OF APPLYING THE POWDER.—The lids being thoroughly everted, the pulverized acid is freely dusted over the exposed conjunctiva with a camel's-hair brush. The amount will, of course, vary, but in most cases of granular lids, a quantity should be introduced sufficient to cover completely the parts to which it is applied. The frequency of application will vary from three times a day to

three times a week—this difference depending on both the individual and the disease. It will be safe to repeat the application as soon as the disagreeable symptoms which have been relieved by

the remedy begin to appear again.

EFFECTS PRODUCED BY THE POWDER.—Its immediate effect is to produce a burning, gritty sensation, with some pain, lasting for five or thirty minutes, and a free serous discharge, after which relief is experienced, and the lids feel freer, lighter and smoother than before its use. This beneficial effect lasts for a period, varying from a few hours The conjunctiva at times shows to several days. reduction in swelling and thickening as soon as the irritation following its use has passed off. however, more noticeable after the remedy has been used for a week or more, when perceptible thinning of the conjunctiva is observed, and clearing up of the cornea if pannus is present. When boric acid powder is applied to succulent tissue or a swollen mucous membrane, a free serous discharge quickly appears, which lasts for ten or twenty minutes. This discharge occurs largely at the expense of the volume of the tissue to which it is applied, and it is followed by a shrinkage of the same. This is best illustrated in the nasal cavities, when they are closed or nearly so from swelling of the mucous membrane. A short time after the use of the acid the passages become clearer and freer, and this is noticeable to the examiner as well as to the patient. This serous flux is probably of an osmotic character. Its escape relieves succulent tissue of its superabundance of serum, thereby causing contraction, which facilitates a healthier circulation and better nutrition. Its action as an irritant is in the same direction, and is especially instrumental in the cure of corneal affections. The power possessed by boric of restraining micrococcal development, of diminishing diapedesis, of lessening the ameboid movement of leucocytes, and other tissue and chemical changes which it produces, are factors which enter into the theory of its action. When the powder is applied to a granular conjunctiva it not only covers the entire membrane, but enters the cracks and crevices between the granulations, and brings about the changes indicated upon the conjunctiva as a whole, and upon the granulations individually.

Cases suitable for and Facts governing its Use.—I have used boric-acid powder in all forms of granular lids, and in most varieties of conjunctivitis, with benefit. I think, however, that the papillary form of granular lids is most amenable to its influence. Pannus in every instance has been markedly improved, and in many cases cures have been effected. In ophthalmia neonatorum some cases have received benefit, but I rely but little upon the powder in purulent cases. On the contrary, it acts best when the secretion is scanty and serous. I have often noticed that the conjunctiva became less tolerant of its action after the powder had been used for three or four weeks, and in such cases the treatment has been changed with success. Boric acid in this particular is similar to other agents in general use for the treatment of granular lids, for it is often noticed that a remedy will wear itself out, as it were, and it becomes necessary to substitute another agent for the one which has been used. Boric acid is only one of these remedies, and is no more of a specific than others, yet it is an important addition to our list of efficient remedies for a disease which is often rebellious and always obstinate and protracted. It is less painful than other remedies, its effects in this particular being often recognized by the patient, who will ask to have the powder repeated, because it is less painful and more efficient in affording relief than other agents which have been employed. Jequirity has done much toward simplifying and hastening the treatment of granular lids, but there will always remain a large contingent in which the special condition or the general surroundings of the patient will debar its use, and in such cases as these we must resort to those remedies that are known to be of value—possibly less brilliant, but entirely free from danger .-Report on opthalmology in the St. Louis Medical Review, Aug. 28th.

CHOREA.

By SPENCER M. FREE, M. D., Biltimore.

Md. Med. Jour., April 24, 1886:—After discussing the causes, Dr. Free says of treatment, that drugs have been employed extensively as to number and dosage. With few exceptions they are valueless.

The first to be recommended is as far as possible, fresh air, out-door exercise, avoidance of excitement, proper bathing, plain and nourishing food. If the case is severe, rest in bed may be of advantage.

If a cause is discoverable, as worms, decayed

teeth, nasal catarrh, etc., remove it.

Without a careful search we have come upon

thirty-nine forms of treatment.

Strychnia has its warm advocates. Trousseau probably is its best exponent. He uses a solution of the sulphate. He gives it in a dose $\frac{1}{500}$ of a grain t. i. d., gradually increasing the amount to 1 gr. per day. He cautions concerning the great danger, and enjoins care and watchfulness.

West and Bouchut oppose its use on account of the danger, as a number of deaths have been

produced by it.

In all anæmic cases tonics are called for. Iron in some form is preferred by nearly all writers. Radcliff uses the iodide; J. Lewis Smith the ammonio-citrate. The mur. tinct. is generally used. The emulsion of cod-liver oil with the hypophosphites of lime and soda, has been used with good effect.

Dr. Young of Philadelphia prefers cimicifuga.

Dr. West, sulphate of zinc.

Drs. Steiner and Hufland, oxide of zinc.

Dr. Weir, Mitchell, salicylate of soda, especially in cases of rheumatic diasthesis,

Dr. J. H. Carstens, propylamine.

Dr. Goodheart, rest.

Drs. C. L. Dana, Mills, Webber, Rockwell, and Beard, galvanization of brain.

Drs. Baunsi and Burnheim regard hypnotism a specific. Only a few seances are necessary.

Applications of cold to the spine, by means of the wet pack, a jet of cold water, or the ether spray, have been used quite extensively and with good effect. Some advocate the cold bath, or cold shower bath. I have used the cold wet pack in several cases with excellent results. I follow the packing by rubbing with olive oil. These cold applications are used in conjunction with internal medication.

The one remedy which is the main reliance of the great majority of practitioners is arsenic. It is usually given in the form of Fowler's solution, in a gradually increasing dose. Of those who rely chiefly upon it are Smith (J. Lewis), Leesse, Rayer, Martin, Gregory, Latter, Babington, Hughes, Begbie, Romberg, Dieudonne, Barthez, Aran, Edes, Hammond and Seguin.

Dr. Hammond strongly advocates its use hypo-

dermically.

Dr. Gelié says that it fails in nervous and san-

guine patients.

Drs. Romberg and Bourguignon agree with him. In a series of cases, reported by Dr. Chapin of N. Y., treated entirely by arsenic, in which he compares his results with those obtained by Drs. Gray and Tuckwell, who uses the expectant plan, the result was twelve days in favor of the arsenic treatment.

Some few are doubtful as to the value of any treatment; but the results obtained show a shortening of the diseases by judicious management and medication.

THE TREATMENT OF RING WORM.

* Dr. Searlis recommends oil of turpentine for the cure of ring-worm of the scalp (Medicina Comtemporanea). The hair should be closely cut over the effected part, and for a short distance around, and then turpentine is to be liberally applied, and rubbed in well with the finger. This is allowed to remain for about five minutes, and is then washed off with carbolic soap, and afterward with hot water, and the patch is then painted with dilute tincture of iodine, or with a two-per-cent. solution of iodine in turpentine. The application is to be made once or twice a day, and is not painful, though it causes a slight smarting. The writer asserts that he has cured in ten days by this method cases of ring-worm that have resisted all other modes of treatment.

LOCAL REMEDY FOR NEURALGIA.

A mixture of one part of iodoform, to ten or fifteen of collodion, if spread repeatedly upon a neuralgic surface until it attains a thickness of one to two millimetres, is said to be quite effective in the treatment of certain neuralgias. If the first application does not speedily terminate the neuralgia, those who have used this mode of treatment direct that its application should be continued. It seems especially valuable in the relief of neuralgias of the trigiminus. It also seems of value to be applied along the spine, particularly at painful points in what is called spinal irritation. These observations are by no means new, and yet they seem worthy of further consideration.—Neurological Review.

THE TREATMENT OF PARONYCHIA.

Dr. Sellden writes in the Eira that he has for years made a special study of this subject. greater number of his patients have been miners, smiths, machine laborers, servants, and others whose fingers are exposed to injury. The disease commences in the subcutaneous tissue, and spreads to the periosteum. There are differences of opinion as to the varieties of this disease, some authors asserting that there are four others that there are only two—the deep and the superficial inflammation. Dr. Sellden, after a series of trials, found the following method most efficacious in the treatment of paronychia. When the patient will consent to incision, the finger, after it had been opened, is instantly plunged in a tumblerful of hot water which is then allowed to cool till it is nearly lukewarm. Half a teaspoonful of arnica is poured in, and a teaspoonful of the usual 10 per cent. solution is added. This mixture is highly anæsthetic; the finger is held in it for fifteen minutes, when the "bad matter" comes out. This expression is very characteristic of the phenome-The blood and pus exude in a thin stream about the size of a knitting needle, which forms circles in the alkaline liquid, and finally settles in a thick mass at the bottom of the glass. Fifteen minutes or half an hour after the finger is dried it is rubbed with vaseline ointment containing 10 per cent. of sulphide of potassium. The finger is then immediately enveloped in a poultice which continues warm till the next finger bath, and thus hastens the cure. These finger baths are taken from two to four times daily, and the wound is covered during the earlier days with sulphur ointment, and later with a boracic ointment. finger is then bound up with a wadding compress and a bandage. Carbolic acid may be used in the finger bath, but Dr. Sellden gives the preference to arnica, which he finds particularly useful in all sorts of injuries .- Lancet, Aug. 28.

EPILEPTIFORM TIC CURED BY NITRO-GLYCERINE.

Dr. James P. Bramwell reports this case in the Brit. Med. Jour., September 27, 1884.

The patient was 80 years of age, and enjoyed good health till nine months ago, when he was attacked by the disease in question. I shall give the history of the case in the patient's own words:

"Nine months ago, I was seized with pain in the back of the head, which came round by the joint of the jaw-bone on the right side, then spread over the face, chiefly the right cheek and temple. The muscles of my jaw were then fixed; to open my mouth was inpossible. Any attempt to take food brought on a paroxysm of this kind. These turns lasted from five to six minutes, and went on without intermission for five months. The attacks came on sometimes as often as twelve times in the twenty-four hours; during the night they were oftener and more violent, my head being often pulled back with violence. I could not wash my face without bringing on a paroxysm, and a touch of my finger, a puff of cold air, or even a mental emotion, produced the same effect. Things went from bad to worse. I then called in Dr. Bramwell, who prescribed for me bromide of potassium and croton chloral-hydrate, but only with partial relief. Solution of nitroglycerine (o. r per cent.) was given in drop-doses three times a day. The effect of this was almost immediate, and in four days all my morbid symptons had gone. I have since then been four months in perfect health; there has been no return of the fits.

I publish this case in the hope that, in nitroglycerine, we may possibly possess a remedy for a malady which embitters life, and is indeed often quite intractable. I am fully aware what good results have accrued from nerve-stretching, or even the removal of Meckel's ganglion; but, before resorting to this somewhat formidable measure, it might be well to see if the use of the nitro-glycerine might not obviate such a necessity.

IODIDE OF POTASSIUM IN THE TREAT-MENT OF INFANTILE BRONCHO-PNEUMONIA.

Dr. Zinnis, of Athens, Greece, says that potassium iodide in the broncho-pneumonia of children, from one to five years of age, especially in the subacute form, as nearly approaches a specific as can be. It is most useful in the early stages. He says it lowers the temperature, reduces the frequency of respirations, and improves the local conditions rapidly. It is given in doses of eight to twenty grains. according to age, three times daily. —N. Y. Medical Journal.

A NEW REMEDY FOR WARTS.

Under this head a Russian physician, Dr. Subtschanioff states, in Rusk. Mediz. that, warts washed with the tincture of thuya occidentalis will, in the course of two or three days, dry up and fall off. This is by no means a new remedy, as the expressed juice of the thuya occidentalis or American arbor vitæ, has been used for this purpose time out of mind. This does not alter the fact that the remedy is a good one, and deserves to be better known.

ON THE EARLY DIAGNOSIS AND TREAT-MENT OF SYPHILIS.

By Fessenuen N. Otis, M.D., New York, Clinical Professor of Genito-Urinary Diseases of the College of Physicians and Surgeons.

Syphilis is not necessarily of venereal origin. From the intimate contact which occurs in the sexual relations, and from the fact that abrasions are most common on mucous membranes, it is usually communicated through sexual contact, but syphilis may be and is frequently conveyed through what is termed mediate contagion—that is, by means of any substance, fluid or solid, in or upon which has been deposited the contagium or disease germ of syphilis. Thus the blood of a person may be the medium of the contagion after the second month of its acquirement or inoculation. Pencils, cups, spoons or pipes, or dentists' instruments, defiled by the saliva of a person who has syphilitic lesions on the lips or in the mouth or throat, may be the medium of communicating syphilis to an innocent person, provided only that such articles are brought into contact with an abrasion or cut on such person. Fortunately this open-lesion on the healthy is essential to the acquirement of syphilis.

The site of inoculation of syphilis is called the *initial lesion* or *chancre*. This does not necessarily present any characteristic features when first observed. It may be, to all appearance, a simple abrasion, a crack, a wart, a vesicle, a pustule, or a papula, and yet prove to be just as much an initial lesion of syphilis as if it presented the characteristic induration and saucer-shaped excavation of the

typical Hunterian chancre.

It is true that induration of a sore is always suggestive of syphilis, that there are indurations associated with venereal lesions which enable one to claim, at once, with positiveness, a syphilitic cause, and these are such as are of a cartilaginous hardness; but in the majority of cases the induration is not a sure guide, because often not present is sufficient degree to be characteristic, and frequently not present at all. Sores, however, which indurate even slightly after healing are, as a rule, syphilitic.

Diagnosis of syphilis, as a rule, is impossible before the third week from the date of exposure. Abrasions or indurations, which are first discovered two or four or even eight weeks after a suspicious connection, if not otherwise distinctly accounted for,

are usually initial lesions of syphilis.

And often no positive diagnosis can be made before as many months or more. This fact makes it necessary to give a guarded prognosis in regard to any and all lesions about the genito-urinary apparatus, whether abrasions, apparently simple or accidental scratches, or even points of redness, in every case when an illicit sexual contact has taken place, and to keep the individual under observation for at least seventy five days, and no suspicious lesions appearing, before a positive assurance should be given that the danger of subsequent develop-

ment of syphilis is past. Even if nothing abnormal is discovered after an illicit connection, marriage should not be entered into, nor marital relations resumed until at least that period had passed, and the result of a careful re-examination has given assurance of probable escape from syphilitic infection. Fournier cices a case where the apparent incubation was seventy-five days, Bumstead and Taylor, one of fifty days. The average is stated to be about twenty-four days.

Initial lesions of syphilis on the integument do not exhibit a characteristic induration, as for instance on the finger or on the body of the penis.

In every case when the possibility of having acquired syphilis is under consideration, an examination of the person, with whom contact has occurred, should be insisted on when praticable, and in such examination not only the genital apparatus, but the mouth, throat and anus should receive careful scrutiny. Examine not only the body for eruptions, especially the scalp—not only the lymphatic glands in the groins, but in the neck and in the epitrochlear spaces. In all cases it should be borne in mind that recent, painless gland enlargements are almost certainly due to a syphilitic infection.

In such examinations it must be remembered that the late or so-called *tertiary* lesions of syphilis are *not inoculable*, and that the presence of such lesions, whether as eruptions or ulcerations, do not indicate a capacity to communicate syphilis. On the contrary, if well authenticated as tertiary lesions or sequelæ, they go to prove that the person bearing such manifestations has not been the source of a fresh infection.

In the examination of a person, having had connection or contact with a person suspected of having syphilis, note not alone the date of such exposure as claimed, but also the date of preceding exposures, whether believed to be suspicious or otherwise, bearing in mind the fact that no feature characteristic of a syphilitic infection is likely to be present under fifteen or twenty days from the date of such contact. Observe not only the condition of lymphatic glands adjacent to any suspected lesion, but also those of the neck and epitrochlear spaces, and any enlargement should be marked and noted for future reference.

In the absence of positive evidence of syphilis, in any lesion following illicit contact, no internal treatment is necessary. Local measures based upon local conditions alone are advisable. If an abrasion is present, or an inflamed point or patch, or an herpetic vesicle, or a scratch, the application of a weak solution (2 grs. to oz.) of the acetate of lead, or of ferric alum in rose water, or a little powered oxide of zinc, is sufficient. If the lesion is pustular it should be cauterized and treated as a chancroid, until healing has taken place, or until satisfactory evidences of syphilitic infection are present. Every lesion, of whatever size and description, following a suspicious venereal contact, should be subjected to frequent observation, and

its progress minutely noted with reference to its possible syphilitic nature. If it heals without induration and without marked enlargement of adjacent lymphatic glands, and if for a period of twenty five days no induration develops on the site of the lesion, and no enlargement of glands has, after close observation, been discovered, then the escape from infection may be fairly assumed; but it is not absolutely safe to give a positive opinion that the lesion has been non-syphilitic until the full period of seventy-five days (previously noted as the extreme known limit of incupation) has been reached, without the occurrence of local pathological changes. On the other hand, if the lesion is a papule, from its first discovery, or an erosion situated on a papule—insensitive, sluggish, persistent—or if, after healing, it is easily abraded, or, if open, its secretion is serous and scanty, and its base more or less indurated, or if, when on the integument it becomes boggy and red, or stiffened and scaling, and if in addition the lymphatic glands in connection with it become enlarged, there is here no reasonable doubt but that the disease is an initial lesion of syphilis, and it should be treated accordingly. It is the coincidence of a number of evidences of the syphilitic nature of the local lesion upon which an early decision is based, and not upon any one, although the occurrence of any one of the above-named evidences should compel a postponement of a positive decision, until the full period during which secondary symptoms might develop has passed; and this is not less than six months. A well-grounded suspicion of the syphilitic origin of any lesion should be a bar to marriage for at least three years, or to the resumption of marital relations for a period of at least six months.

This apparently excessive caution becomes essential from the fact that if by any means the suspected lesion subsequently proves to be syphilitic the blood in such case, through an accidental scratch or abrasion coming in contact with a similar breach of surface on a healthy person, may be the means of communicating syphilis. The failure to appreciate such danger as the foregoing has resulted (in recorded and well-authenticated cases) in the communication of syphilis to innocent wives by husbands who, after careful examination by their medical advisers, had received permission to resume marital relations.—N.Y. Medical Monthly.

INTERNAL ADMINISTRATIONS OF CHRYSAROBIN FOR INFANTILE ECZEMA.

Stoeguart reports several cases of infantile eczema treated by small doses of chrysarobin. It is given from a thirteenth to a tenth or even a grain daily. The periods of cure did not exceed ten days. Theoretically, the drug is supposed to exert a constricting action on the capillaries of the skin.—N. Y. Medical Journal.

PRURITUS OF THE ANUS.

Dr. J. B. Johnson of Washington, D. C. (Med. and Surg. Reporter, April 24, 1886), says that the local treatment should be commenced by the institution of the most perfect cleanliness. The patient should be instructed to wash his anus well with a cloth and cold water after each action of the bowels, and then to bathe his anus with the following wash:

R. Hyposulphite of soda 3 ss. Carbolic acid, $\mathfrak D$ ij. Aqua distil., 3 iv. Glycerine, 3 ij. Mix. Sig.—Shake the wash well, and use freely, after first thoroughly washing the anus with cold water.

In addition to this treatment, the patient must every night or two, after undressing for bed and washing and drying his anus, lie upon his face; and, with his hands behind him, separate his nates as widely as possible, and be instructed to strain as at stool; and while thus straining the anus will protude, and while the anus is protruding, in consequence of the strong effort, five or ten grains of pulv. iodoform must be sprinkled upon the anus from a knife or spatula, by an assistant. minute eruption which causes this most distressing itching will be found most abundant at the junction of the mucous membrane of the rectum and the skin of the anus; and it is at this situation that the application does the most good. patient should allow the iodoform to remain in the position of its application during the night, repeating during the day his ablutions of the anus after each action. The probability is that after two or three nightly applications of the iodoform all pruritus will disappear; but the patient should be directed to have the application of the iodoform continued three or four times a week, until he is entirely relieved.

EXTRACT OF CALABAR BEAN IN EPILEPSY.

Dr. Rusche recommends the exhibition of calabar bean in collepsy and allied affections, and says he found it to render great service in cases in which the bromides and atropine have been ineffectual (Deutsche Medicinal-Zeitung, May 10, 1886). He notes the curious circumstance that better results are obtained by alternately increasing diminishing doses that when the same quantity is given continuously. The drug is to be given in the following preparation: Extract of calabar bean, 71/2 grains; spirits of sulphuric ether, 75 minims; peppermint-water, 5 drachms. Dose: 5 to 10 drops for children, 8 to 16 drops for adults, three times a The smaller dose is commenced with the first day, and one drop added each day until the maximum is obtained, and then the quantity is diminished by a drop each day until the minimum is reached. The writer reports a number of cases in which excellent results were obtained.—Med. Record.

LEISTER'S LATEST ANTISEPTIC DRESSING.

Leister's latest antiseptic dressing is known as salalembroth. He uses it exclusively in his wards with fine results. It is a double mecurial salt, made by the sublimation of a mixture of perchloride of mercury and chloride of ammonium. It is very soluble, and has not been used in medicine since the time of the alchemists. All dressings-gauze, cotton, wool, bandages, lint, bedding, patients' underclothing, etc.,—are soaked in a I to 100 solution and dried. He colors these dressings with aniline blue, I to 10,000, so that when an alkaline discharge comes in contact with the dressings, the blue is removed and turns reddish, enabling him to see where the discharge has been and its quantity, however small or large, moist or dried.

THE CANADA MEDICAL RECORD.

A Monthly Journal of Medicine and Surgery.

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SUBSCRIPTION TWO DOLLARS PER ANNUM.

All communications and Exchanges must be addressed to the Editors, Drawer 356, Post Office, Montreal.

MONTREAL, OCTOBER, 1886.

CLIMATE OF FLORIDA.

A Canadian medical man, writing to us from Ocala, Florida, says: "Florida is very disappointing. It is very hot, very moist and full of Malaria. Anæmic men, women and children meet the eye everywhere."

ARTIFICIAL QUININE.

According to a report which appeared in the *Morning Post* a short time ago, Dr. Cresswell Hewett, of Lincoln's inn-fields, has discovered the synthetical or artificial mode of making quinine, by which the price of that drug will be reduced to something like 3d. per ounce. The importance of this discovery (which was made two or three weeks ago, through the accidental breaking of a medicine bottle) is rendered greater by the fact that, while hitherto we have been depending for our quinine

on the cultivation of the chichona tree, from whose bark only about 2 per cent. of good quinine can be extracted, 98 per cent. being valueless, the drug can now be manufactured without limit by a very simple process, from an article which can always be got in abundance in any part of the world. Dr. Hewett has submitted a sample of his preparation to Messrs. Howard & Sons, quinine munufacturers, Stratford, who had expressed surprise at the result of their analysis, the sample being equal to the best quinine in the market. The discoverer is about to communicate with the British Government, who annually spend in India alone about £60,000 in the cultivation of the chichona tree.

MEDICAL INCOMES IN CANADA.

The Toronto Globe (quoted by the New York Medical Journal) says: "There is only one medical man in this city who last year earned \$5,000 from profession, combined with the interest he received on his previous savings. There is not one man on the list who had \$4,000, and only four who touched \$3,000. When we come to the comparatively modest and moderate \$2,000 we naturely conclude that we shall have a full legion. But no, we have only fourteen all told who come up to this figure. When we come to between \$2,000 and \$1,000 the number becomes encouragingly large. As many as fifty-one of the best-known, and greatly sought, after doctors of our city are put down, under their own hands and seals as having last year lived on from \$1,000 to \$1,800. Some of these are professors. There remain only the unfortunates who worry along with from \$800 down almost to zero. Of these, we are sorry to say, there were last year thirty-six."

A NEW HÆMOSTATIC.

Dr. Spaak, in the Journal de Bruxelles, describes a hæmostatic, which he accidently discovered and which he has used for some months. It consists of two parts chloroform and a hundred parts water, and presents the following advantages:—

- 1. It acts with remarkable promptness.
- 2. It has not the least unpleasant taste.
- 3. It has no escharotic action.
- 4. It is always to be had, and costs almost nothing.
- 5. It has no unpleasantness in its action, and does not disturb the operation.

In all operations in the cavity of the mouth and neck, a simple washing-out with this remedy is sufficient to stop the hemorrhage from the larger vessels in an instant.

The author does not state the reason of this action; he simply relates the fact.

REVIEWS.

The Medicine of the Future. By the late Dr. Austin Flint, New York, D. Appleton and Co.; Montreal, Dawson Brothers, 1886.

The late Dr. Austin Flint was appointed to read the address on Medicine, boore the British Medical Association, at its meeting this year; but his sudden death transferred that duty to Dr. Billings of Washington. Among Dr. Flint's papers was found the address which he had prepared, and it is now published under the above title. The profession which held him in such high esteem will read with a melancholy pleasure this his last production. The little volume contains an excellent likeness of its author which will tend still further to enhance its value.

The Principals and Practice of Medicine. By the late Charles Hilton Fagge, M.D., F.R. C.P. Examiner in Medicine in the University of London, etc., etc., including a section on Cutaneous diseases, by P. H. Pye Smith, M.D., F. R. C. S. Lecturer on Medicine at Guy's Hospital; Chapters on Cardiac diseases by Samuel Wilkes, M.D., F. R. S., physician to Guy's Hospital, Vol. 2, Philadelphia, P. Blakiston, Son & Co., 1886; Montreal, Dawson Brothers.

The Medical practitioner cannot complain of lack of works on the Practice of Medicine, for most of the Lecturers on Medicine, at all the great English, Continental and American Colleges, have put on paper the result of their large and extended experience. The most of practitioners, from want of means, and often also from want of time for their perusal, must discriminate and select those which promise them the largest amount of information in the most readable form. They can obtain many which will answer this description, and some of them comparatively recent additions to this department of Medicine.

To this list must now be added the volume before us. It is beyond a doubt a most valuable addition to our works on practice. Its lamented

author was well known as one of London's most distinguished physicians, who, during his life-time, was noted as a keen observer, and a most earnest worker in the department of Pathology. insight he gained in this department, the handmaid to practice, is noticeable throughout his whole work, the Pathology of disease being evidently from a master's hand. In a volume so extensive, nearly nine hundred pages, more than a hurried glance is impossible, yet we have read sufficient to satisfy us that Dr. Fagge's work will transmit his name to posterity. The special chapters by Dr. Pye Smith, and Dr. Samuel Wilks give additional value to the work, that by Dr. Wilks being especially valuable. The book is printed on beautifully clear white paper, with clear type, and is altogether produced in excellent style.

Diseases of the Nerves, Muscles and Skin, being Vol. III. of Dr. HERMANN EICHHORST'S Handbook of Practical Medicine, and Vol. X. of Wood's Library of Standard Medical Authors 1886, (consisting of 12 vols. price, \$15.00). Sold only by subscription. William Wood & Co., New York.

This volume keeps up the reputation of Wood's Library of Standard Medical authors. Those who have subscribed for this Library for several years now find themselves in possession of a great many works of much value in every department of medicine, and which they never would have obtained in any other way. We commend the Library to all our subscribers.

The students' Manuel of Venereal Diseases being a concise description of those affections and their treatment. By BERKLEY HILL, M.D., professor of Clinical Surgery in University College, London, and Arthur Cooper, M.D., formerly House Surgeon to the Lock Hospital, London. Philadelphia, P. Blakiston Son & Co., 1886; Montreal, Dawson Brothers, price \$1.00.

We have read carefully the greater portion of this manuel, and are highly pleased with its clearness of description, conciseness of diction, and fulness of treatment. Its authors are men well known to the Medical world, who follow the work of the London Hospitals, and they have done their duty well. We commend it not alone to students but to all who desire to brush up their knowledge of a very important department of Medicine.