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THE CANADA MEDICAL RECORD.

Vol. XIII.

MONTREAL, AUGUST, 1885.

No. 11.

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Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY, MONTREAL.

Stated Meeting, May 1st, 1885.

T. J. ALLOWAY, M.D., 1st Vice-President, in the Chair.

Dr. WM. GARDNER read a paper on a case of tubercular peritonitis with encysted collection of fluid, simulating ovarian cyst.

S.B., æt. 23, unmarried, domestic servant, belonging to a remote country district north of the Ottawa River, who had lived in the city during the previous six months, was sent to me about last midwinter as the suspicion of pregnancy had arisen in consequence of extensive abdominal enlargement. She admitted a pregnancy terminating at six or seven months a year and a half previous. She could give no definite account of the date at or about which the present abdominal enlargement began, but her mistress noticed it three or four months previous. It had rapidly increased since then. The girl complained of abdominal pain; menses had been absent for three or four months; general strength, health and appetite had declined, and she had become emaciated. The tongue was red.

Examination.—The belly much enlarged; the skin below the naval presenting recent pinkish striæ, as well as old silvery streaks. Well-marked fluctuation over the whole of the anterior and antero-lateral aspects of the abdomen. Dullness on percussion over the same area. In the lumbar

region (flanks) and epigastrium the bowel note present. No firm or solid part to be felt anywhere. The anterior aspect of the abdomen quite uniform. The perineum slightly lacerated and the posterior vaginal wall partially prolapsed. The uterus, measuring two inches, pressed upwards and forwards, lay immediately behind the pubes. The patient was admitted to the Montreal General Hospital and kept under observation for a few days, when it was found that she had fever of septic type, the temperature at times running very high, with profuse sweating and occasional attacks of vomiting.

Operation.—The ordinary incision for ovariotomy was made, but on reaching the peritoneum no separation of parietal from visceral layer could be made; the knife entered the collection of fluid, passing through what seemed to be a thickened, closely adherent cyst wall. The fluid was amber colored, contained flakes, and in the last portions an obvious admixture of pus. The cyst wall did not collapse as the fluid escaped, but appeared to be adherent everywhere, even to the bottom of the pelvis. Acting on this view, and with the concurrence of my friend Prof. Roddick, who was assisting, I decided to make no attempt at separation of the supposed cyst, but to drain and irrigate as affording the patient the best chance. A large glass tube was passed through the wound into the Douglas pouch, and irrigation practised every two hours, night and day. At first weak carbolized water, then corrosive sublimate solutions, and finally solutions of iodine, were used for this purpose. The general condition at once improved, and this was maintained for a period of ten days—Fever diminished and appetite improved. After

a few days the reflux water during irrigation contained enormous quantities of fibrinous, flaky material. Soon, however, her condition again declined. Temperature ran high; sweats were profuse. The discharge always somewhat foetid, became more so. Soon after the operation the patient suddenly developed a cough with expectoration, which soon became purulent, and was at times bloody. Three weeks after the operation a large rubber drainage-tube was passed through the Douglas pouch and out by the vagina, being carried a few inches beyond the vulva. This did no good. She gradually sank, and died exhausted six weeks after the operation. Two days before death she complained of sore throat, and on examination the fauces, tonsils and posterior wall of the pharynx were found to be covered with a diphtheritic membrane. Until the autopsy, I adhered to the original diagnosis of suppurating, universally adherent, ovarian cyst. Dr. R. J. B. Howard, acting pathologist to the Hospital, made the autopsy. I append his report:—"On opening abdomen a large globular mass presents, of the size of a man's head, occupying false pelvis; this and the parietes are everywhere covered by a grey, rough membrane about one-eighth of an inch thick. The transverse colon is firmly adherent to the upper surface, and is also bound tightly down to the liver. A collection of pus is found below and by the side of the spleen, and another smaller under left lobe of liver in middle line. The anterior peritoneal cavity is thus converted into a suppurating cyst, extending from liver down into true pelvis, nearly filled by the mass, which is found to consist of all the intestines, except the transverse colon, closely matted together by recent slight adhesions, which are studded with miliary tubercles. The cyst wall is apparently much older than the inter-intestinal adhesions, and looks like an unhealthy granulating membrane. The walls and viscera of true pelvis are covered by the same membrane. The great omentum has quite disappeared; but no doubt has been spread out over the intestines, and formed part of the membrane covering them. All the abdominal viscera adherent to one another and to parietes. Liver fatty; contains a few gray granulations. Kidneys contain a few gray granulations. Lungs universally adherent; abundantly studded with gray granulations. Tonsils and pharynx—surface gray and sloughy-looking. No loss of substance; same

appearance involves oesophagus opposite cricoid cartilage, and about four inches lower down."

Dr. MIGNAULT, read a paper on a case of Partial Epilepsy which appeared in the June Number of the Record.

In the discussion which followed, Dr. Henry Howard took exception to the name of the paper, and said that it should be called a mild form of epilepsy. Another form was the marked epilepsy. He knew of a gentleman who has had attacks of this nature for ten years, but is not aware of the fact. He has a momentary loss of consciousness, with slight quivering of the muscles of the face. Another, a lady, has attacks which are not more severe than the aura of an ordinary epilepsy. She suddenly feels a something run up from the foot to the heart, and in a few minutes is perfectly well again. The Italians have been writing much on epilepsy. They show that cortical epilepsy, when the lesion is in the motor area, always is accompanied with convulsions, which begin in the side of the face opposite to the brain lesion. The arm is next affected, then the leg, and last the trunk. When the lesion is in the peripheral or lower centres, then there are no general convulsions. In a pure case of cortical epilepsy, there must be biting of the tongue and relaxation of the sphincters.

Dr. CAMPBELL, who has on several occasions spoken of the great benefit of nitro-glycerine in epilepsy, again mentioned his continued success with it, and related one or two cases where a wonderful change for the better has followed its administration.

Stated Meeting, May 15th, 1885.

T. J. ALLOWAY, M.D., 1st Vice-President, in the Chair.

Atmospheric Materies Morbi.—Dr. HENRY HOWARD read a paper on this subject which appeared in June number of RECORD.

Stated Meeting, May 29th, 1885.

T. J. ALLOWAY, M. D., 1st Vice-President, in the Chair.

Dr. R. J. B. HOWARD exhibited the following pathological specimens:

Atheroma of Aorta—Infarct in Spleen—Granular Kidneys.—The heart showed a moderate degree of calcification of the aortic valves, normal in other respects. Aorta showed very advanced atheroma, there being all degrees from slight yellowish sub-intimal deposit to extensive

calcification of the inner and middle coats; also many spots where the intima had been destroyed, laying bare the middle coat, which was calcified. In one place two of these "atheromatous ulcers" communicated by a passage running under the intima, admitting a pencil. The spleen had a large infarct raising the capsule, marked off from the surrounding tissue by a dense, yellow, fibrinous capsule. The substance of the infarct was of a dull reddish brown color, soft and friable, apparently structureless, and looking like a decomposing blood clot. The kidneys were a little smaller than normal. Cortex shrunken, surface typically granular, surface tough on section.

The patient had a spot of softening in the pons. This specimen was in Dr. Wilkins' possession. The condition of the aorta, etc., was not suspected during life.

Dr. WILKINS said this patient, aged about 73, came to hospital with paresis of the left side, contracted pupils and mental derangement. The muscles of the thumb of the left hand were wasted, the right less so. Five or six days before death, left-sided hemiplegia set in, which could not be accounted for at the time, but which the *post-mortem* made clear. He sliced the brain, getting nothing abnormal till the pons was reached. Here, to the left of the median line, was found a spot of softening the size of a pea, due, no doubt to a piece of fibrin from the aorta or a little plate becoming separated and carried till lodged there.

Malignant Disease of the Uterus.—Dr. HOWARD exhibited this for Dr. Armstrong. The cervix was gone; all the remaining tissues were involved, as were also the parts about the bladder. Both ureters were enormously dilated, from being blocked at the lower end. The pelves also were greatly distended. There were no signs of peritonitis.

Dr. ARMSTRONG said he saw the patient first in the beginning of January. Was sent for on account of excessive metrorrhagia. The case was easily diagnosed, and the chloride of zinc paste applied. A slough formed and came away. She got about till April 1st, when he was again sent for to stop another hemorrhage. The paste was again applied. He was sent for a third time for this trouble last Wednesday, but on arriving she was dead. A late symptom was incontinence of urine from the infiltration about the neck of the bladder and urethra. For the last five or six days

no urine came away. She never suffered much. The patient's sister had just recently died of the same disease.

Dr. McCONNELL then read a paper on "Cholera and the Comma Bacillus." (Published in July No of RECORD.)

Dr. WILKINS said that five or six weeks ago Prof. BILLINGS brought him a test-tube containing the Asiatic cholera germs in a beef-tea and gelatine solution, also one with the cholera morbus germs. From the shaking they received both were liquified, so that their peculiar and very different behaviors could not be observed. The cholera morbus preparation was very foetid, the other much less so.

Dr. KENNEDY suggested that, as the men about copper works were known to be rarely attacked with cholera, the salts of copper should be tried as a remedy.

Dr. Hy. HOWARD had seen three epidemics—one in Ireland and two in Canada. Each epidemic appeared to be less severe than the previous one. The salts of copper had been used in all these epidemics, but were not found of more benefit than other astringents.

Dr. A. L. SMITH asked if during the last epidemic in this city the water reservoir was then at the head of Elizabeth street, and was the water pumped up to it from the river opposite to the city?

Dr. KENNEDY said it was.

Dr. Hy. HOWARD said that 42 years ago the reservoir was a large wooded vat at the corner of Notre Dame and Bonsecours streets, the water being pumped into this from the long wharf. It was supplied by wooden pipes. There were then no water-closets in the houses.

Dr. TRENHOLME said that if cholera came, he intended giving his patients large quantities of water along with spirits and camphor.

Dr. R. J. B. HOWARD said he had recently heard a discussion as to its treatment in London application of hot water to the back and abdomen, and hot alcoholic drinks with diluted sulphuric acid were strongly recommended. Enemata of carbolic acid, corrosive sublimate and nitrate of silver were said also to be of great service.

Dr. REED said that more than likely it was the acid fumes about copper works which preserved the workmen from attacks of cholera.

Stated Meeting, June 12th, 1885.

E. H. TRENHOLNE, M.D., 2nd Vice-President, in the Chair.

Cancer of Rectum with Secondary Affection of Stomach.

Dr. R. J. B. HOWARD exhibited the stomach and intestines of a patient who had recently died at the Montreal General Hospital. The history of the case is as follows: James W., aged 63, had for some time had pain referred to bladder, and was sent into the hospital under Dr. Fenwick, on suspicion of having stone in the bladder. In December, 1884, he began to suffer pain over pubes, slight and limited in area, increased on lying down. This pain increased steadily in intensity, and in April last patient gave up work on this account. At this time there was frequent micturition, both day and night, but urine presented nothing unusual. He now began to lose flesh rapidly. Some three weeks before admission he had some retching, and on three occasions vomited. On admission into the hospital June 2, '85' the above symptoms were present. It was found that the stream during micturition was sometimes arrested, and that the act was attended by pain. No stone was detected in the bladder, and as the urine contained some pus, and his prostate was enlarged, he was put on treatment for cystitis. Nothing was discovered when examining prostate per rectum, except the enlargement of that gland. Two days later he had an alarming attack of collapse, and recovering from this, symptoms of pneumonia appeared, of which disease he died on June 9th. Before this a hard tumor was detected in the epigastrium, which was believed to be malignant disease of the pylorus, or possibly the liver. The man was much emaciated, and had a very cachectic appearance.

Necropsy.—Pneumonia of left lung and œdema. In abdomen all the glands in omentum were enlarged, some the size of a walnut, hard and firm. The gastro-colic omentum was puckered up and contained a large nodular mass. Ascending colon bent on itself, and held down by a large mass of new growth, which appeared to originate in the glands of the meso-colon. Sigmoid flexure turned up and fixed to transverse colon by another nodule of cancerous tissue, and lower down, opposite the third lumbar vertebra, adhered to a large mass formed between the layers of the mesentery.

The abdominal viscera were removed *en masse*, and on further dissection an ulcerated surface the size of a man's palm was found occupying the posterior aspect of the lesser curvature of the stomach, and its wall was slightly infiltrated; the pancreas was also involved in this growth. In several other places the walls of the bowel were the seat of similar new growths, usually attacking them from without, and starting from between the layers of the mesentery. All the mesenteric and retroperitoneal glands were enlarged, firm, and evidently the seat of the same new growth. On the anterior wall of the rectum, corresponding to a mass the size of a bantam's egg, seated in wall of rectum and adherent to the bladder just above the prostate was an ulcer the size of a ten-cent piece, having raised, rolled ridges, and a somewhat depressed base. The ulcer was about four inches from anus, and no enlarged glands were found below this. Veins of prostatic plexus filled with old clot. Arteries normal. Bladder normal, with exception of enlarged prostate.

Dr. R. J. B. H. remarked that this was another of those cases where there was extensive disease of the stomach without symptoms. The original disease, without doubt commenced in the rectum, and extended upwards to the stomach through the glands. He also said that it is most unusual for malignant disease of the rectum to spread so rapidly, and from so slight a local affection to become general carcinoma. The symptoms caused by moderate enlargement of the prostate were more prominent than those caused by the extensive malignant disease.

Case of Tetany.—Dr. STEWART read a paper on this case and exhibited the patient.

A.C., aged 39, through the kindness of Dr. McConnell, consulted me about two months ago, complaining of diarrhoea and "spasms of the face, arms and legs." His diarrhoea began seven years ago, and has been more or less constant ever since. The spasms of the muscles of the limbs and face, which are of an intermittent character, first troubled him about five years ago. During the late American civil war he served as a private soldier throughout many of the Virginia campaigns. He had three attacks of malarial fever, and for eighteen months suffered from chronic dysentery; and it was not until he moved to the Western

* Since this report, a microscopic examination of the primary nodule shows this to have been of the nature of true scirrhus and not epithelioma.

States, after the termination of the war, that he completely recovered from it. He never had either syphilis or rheumatism; never drank to excess; worked at his trade (stone-mason) until eighteen months ago, until he was no longer able on account of gradually-increasing general weakness and the stiffness of the muscles of his hands. In 1863 he received a severe scalp wound from a sabre, which healed in a short time. The family history is unimportant.

Patient is tall, emaciated and anæmic, with an anxious and careworn expression. About once a month the muscles of his fingers, hands and arms become the seat of tonic contractions, which generally last from ten to twelve days. The thumbs become adducted and opposed, while the fingers are adducted and semi-flexed. The contractions come at times suddenly, but usually are slow in making their appearance, and gradually increase in severity day by day up to the tenth or twelfth day, when they suddenly begin to decline, the parts becoming normal in about twenty-four hours. When the spasms are what he calls severe, the adductors of the upper arms become involved, bringing the arms crossed in front of the body, the forearms being usually semi-flexed. For some hours before, and during the whole time that the tetany is present, he has a disagreeable feeling of numbness in his fingers. The dorsum of his hands swell and become very painful also during this period. The pain is especially severe when an attempt is made to move the contracted muscles. The muscles of the face are usually more or less contracted at the same time. He has a feeling as if the skin was too tightly drawn across his face. The facial muscles are also the seat of almost constant fibrillary twitchings. The muscles of the lower extremities are only occasionally the seat of spastic contractions; when they are, the feet and toes are in a state of planter flexion, the feet being turned inwards and the thighs adducted. During the existence of tetany he has diplopia.

The electrical reactions of the nerves and muscles affected are enormously increased. During the past week, while he was suffering from one of his usual attacks, contraction of the facial muscles was induced on the application of galvanism to the facial nerve by a strength of current not exceeding .25 of a milliampere (measured by Edelman's galvanometer), while at the present time, when his muscles are no longer rigid, the tetany having passed away, it takes 3 milliamperes to

produce a similar result. There is a corresponding difference in the reactions of the radial, ulnar and median nerves.

	<i>Normal Period</i>	<i>Tetany period.</i>
Facial....	3.0 milliamperes.	.25 milliamperes.
Radial....	5.00	1.00
Median....	4.25	.50
Ulnar....	3.50	.50

Since coming under observation, the two attacks which he has suffered from have not been attended by contraction of the muscles of the lower extremities. On this account their electrical reactions have not been ascertained. Five milliamperes is sufficient to produce tetanic contraction on the shutting of the kathode (K S Te) and on opening the anode (A O Te). There is no change in the normal formula, the K S Z > A O Z. The difference in the reactions of the nerves and muscles to the induced current during the tetany and after it has passed away is not marked. In fact the interossei require a much stronger current to produce their contraction during the tetany state than during the normal condition. This is plainly owing to the œdema of the hands during the attacks, the œdematous tissues greatly increasing the resistance. The muscles, although flabby, are in a fairly nourished condition. The patellar reflexes are greatly exaggerated during the period of tetany, while after it has passed away it is frequently impossible to produce any contraction of the quadriceps when the patellar tendons are struck. The triceps and biceps reflexes are exaggerated during the tetany period, and absent after the muscles have become normal. No ankle clonus at either period. There is nothing definite to be made out in regard to the superficial and organic reflexes.

The tongue is constantly in a raw-looking state. The appetite, however, is usually fair. He is seldom free from diarrhœa, the average number of stools in the twenty-four hours being usually about six; only very seldom is there one stool in the day. The diarrhœa always moderates when the tetany makes its appearance. The abdomen is constantly distended; stools are large, frothy, semi-fluid, and look like pea-soup. The urine is acid, but normal in quantity, specific gravity 1030; contains great excess of both urea and indican, but is free from albumen and sugar. At times he becomes deeply jaundiced. There is no further evidence, however, physical or subjective, of disease of the liver. The apex of the heart is in the normal posi-

tion. There is no increase in the cardiac dullness, neither is there in any other evidence of cardiac disease. Nothing abnormal in the respiratory system. There is no relative increase in the number of the white-blood cells; the red appear to be normal. There is no enlargement of the spleen.

Remarks.—We have here to do with a case of chronic diarrhoea of some seven years' standing, with intermittent tetany of five years' duration. Tetany is a disease which has been known for some years. First described in France by Corvisart, later and more fully by Trousseau, but it is to Weiss and Chovstok, of Vienna, and Erb, of Heidelberg, that we are indebted, in the main, for our present knowledge of it. There are three apparently distinct forms of this disease, forms which differ much in the causes which give them origin and in their prognosis, but little in the clinical pictures which they present. By far the most variety common of this disease is known as "rheumatic" or epidemic tetany.

The second variety of tetany is more chronic, and is due to either chronic diarrhoea, prolonged lactation, or other debilitating influences. The third form follows operations for removal of enlarged thyroid glands.

Clinically, these varieties differ somewhat. The so-called rheumatic form being essentially an acute affection, coming on suddenly and terminating usually inside of two weeks, the spastic periods of a few hours' duration intermitting with normal periods. Recovery nearly always occurs. The chronic form, due to debilitating agencies, differs little from the acute form except in duration. Recovery in these cases nearly always occur also. The so-called surgical variety of the disease generally makes its appearance about a week after extirpation of enlarged thyroid glands, and especially when the subject has been a young female. Many of these prove fatal within a few days, while a number become permanently chronic. Early and complete recovery is very exceptional.

Judging from published observations, tetany is an extremely rare disease on this side of the Atlantic. In England it is equally rare. On the continent of Europe it is quite common, especially in France and Germany. This is true of all forms of the disease. In Vienna, not a winter passes without an epidemic of it, while cases of the chronic and surgical varieties are not at all rare. Up to May, 1883, Billroth performed 78 operations for removal of goitres, 12 of which proved fatal, 6

of these deaths being directly due to tetany. In all, there were 13 cases of tetany following the 78 operations, 6 of which ended fatal. Two of the fatal cases ran a course of upwards of one year, while the remaining four terminated within two weeks.

Pathology.—There is nothing definitely known. In the very few cases where a histological examination of the nervous structures has been obtained after death, no lesion to account for the symptoms present during life could be discovered.

I have in my possession sections of the cervical cord of a young girl who died from tetany two weeks after the removal of an enlarged thyroid gland, the only noticeable change being in the finely granular protoplasm of the ganglion cells of the anterior horns; the granules being considerably larger than they normally are. A few swollen ganglion cells are also noticeable. Simply saying that tetany is due to an exaggerated excitability of the spinal gray matter means nothing. How this excitability is induced remains unanswered. On the theory that the cerebellum is the centre for continuous movements, and the cerebrum for changing movements, Dr. Hughlings Jackson has advanced the proposition that the phenomena of tetany are best explained by defective antagonism of cerebellar influences. That during the tetanic period the cerebral influences are removed.

To explain how causes, seemingly so diverse in their operation, as "rheumatic influences," diarrhoea, lactation, and operative interferences on the thyroid glands, can induce similar symptoms is very difficult. At one time it was thought that those cases following thyroid removals were due to injury of the recurrent laryngeal nerve during the operation. Cases of tetany, however, follow this operation, no matter what care may be taken in avoiding this nerve; it is therefore fair to conclude that there is no direct causative connection, especially when we take into account the fact that irritation of the recurrent laryngeal nerve from the pressure of tumors does not induce this disease. The active cause in the case reported is undoubtedly the diarrhoea, but whether induced by the direct impoverishment of the nerve centres, or through the constant peripheral (intestinal) irritation, it is impossible to say. The late N. Weiss, of Vienna, considered peripheral irritation to be the cause of the disease. He believed that this gave rise to alternate waves of vessel dilatation and contraction. During the former state we

have, according to this assumption, the tetany period, while during the latter the muscles return to their normal condition. This theory might possibly explain cases like the one under observation and those following goitre removals, but it could not apply to the "rheumatic cases."

Treatment.—No medicinal agent has any power in absolutely preventing or diminishing tetany. Billroth speaks favorably of the application of ice to the cervical spine. Erb, Chovstok and Weiss look upon galvanism as the only agent of any real value. Erb believes that it considerably shortens and ameliorates the attacks. He recommends the K A to be applied to the sternum while the A N is to be applied to the diseased parts in succession, including the muscles, main nerve trunks, and the cervical portion of the spinal cord. Since this patient was exhibited to the society, an attack was apparently averted by galvanization of the radial nerves.

In the discussion which followed the reading of the paper,

Dr. GEO. ROSS said he would like to ask Dr. Stewart the mode of death in the fatal cases he had seen. The disease is such a rare one in this country that he had seen but few cases.

Dr. HENRY HOWARD, after alluding to the various disorders of the nervous system allied to tetany, said that in his opinion a more complete anatomical and physiological knowledge of the nervous system is necessary before the exact cause of these cases can be positively known; but he thought that some irritation or inflammation of the vaso-motor nervous system may account for this disease. He has strong hopes that in the near future, with the many workers and varied means of research, the cause of disease such as cancer, tetany, etc., will be found, and when recognized early, that they may be successfully treated.

Dr. GODFREY had seen several cases of tetany, or a disease like it, during the last fifteen years. Dr. SHEPHERD asked why it is that tetany is so much more common on the continent of Europe than in America or England, epidemics of the disease being unknown in either place, and whether tetany is more common in the dark races, as is tetanus.

Dr. R. J. B. HOWARD said it was remarkable that two such different diseases as myxœdema and tetany should occur so commonly after extirpation of the thyroid gland. They occur in animals as well as man. He suggested that, where possible,

the isthmus only of the thyroid should be removed as in the 150 experiments of removal of the isthmus, performed on animals by Victor Horsley, none suffered from tetany.

Dr. WILKINS said that although he had never had a case of tetany, he was much interested in the disease, and thought it probably due to irritation of the peripheral nerves, as these cases always follow diarrhoea, removal of the thyroid, or some other lesion.

Dr. STEWART, in reply, said that in the fatal cases he had seen there was spastic contraction of the respiratory muscles and bronchitis. He could not tell the reason of the frequency of the disease in Europe; of course, removal of the thyroid is a very common operation there, and this would account for some of the cases, but not the epidemic form. He had seen 60 to 70 cases in the General Hospital at Vienna at one time. So frequently did this disease follow extirpation of the thyroid, that Billroth had given up operating for bronchocele, except in cases where the tumors endangered life. He was not aware of the disease being known in the West Indies, or that it is more frequent in the negro race. As to the theories advanced to explain its nature, he thought that advanced by Weiss of Vienna the most probable. Weiss looks upon the origin of the trouble as due to irritation of the sympathetic, waves of dilatation and contraction being alternately set up.

Ureometry.—Dr. REED showed Doremus' ureometer, and illustrated the method of using it. This apparatus is very simple, consisting of one piece only—a bent tube of glass, one arm of which is graduated to represent grains per ounce of urea. The peculiarity of the instrument lies in the fact that a measured quantity of the urine to be tested is projected, by means of a nipple pipette, beyond the bend of the tube, previously filled with the usual hypobromite solution. Dr. Reed had tested it with a solution of pure urea, and found the readings correct. The price of the instrument is two dollars, and of each test under three cents. Specific gravity beads, as supplied by Parke, Davis & Co., for estimating the density of urine, were also shown and recommended, as being more convenient, simple and portable than the usual urinometers.

Stated Meeting June, 26th, 1885.

T. J., ALLOWAY, M.D. Vice-President, in the Chair.

Dr. WILLIAM GARDNER read a paper on a case of extra-uterine pregnancy, successfully treated

by electricity. Mrs. —, aged 38, married 19 years, has had four pregnancies,—all of full term, labors natural, recoveries tedious. Ever since her second labor, 16 years ago, has suffered from symptoms of uterine disease. The last child was born $9\frac{1}{2}$ years ago. Since then uterine symptoms have been worse, and consisted of pelvic and lumbar pain, bearing down sensations, proper and protracted menstrual periods, and leucorrhœa. The last period, previous to the symptoms to be detailed, occurred about October 1st, 1884. On the 16 of the same month a single complete act of coitus occurred, there having been abstinence for many months previous, and in the interval before patient's illness. From the 16th October no proper menstruation, but slight discharges of bright red blood at irregular intervals. She suffered from distress after food, nausea, and occasional vomiting, and suspected that she was pregnant. On the 20th December Dr. Gurd, of Montreal, was sent for, and found her suffering from sudden intense pelvic and abdominal pain, vomiting and faintness, amounting to collapse; deadly pallor, weak pulse, normal temperature. Pain principally referred to right iliac region; next day she seemed worse, and Dr. GARDNER saw her in consultation, and on examination found decided tenderness and induration of right iliac region. No general distension of the abdomen. By the vagina the uterus retroverted and prolapsed; the vaginal portion very low, almost at vaginal orifice, slightly softened. The fundus to the left. On the right side of, and behind uterus a firm mass, closely attached to that organ. The diagnosis was hœmatocele. Morphia was freely given. She rapidly improved. Two or three weeks later, a similar milder attack. After an interval, a third more severe, about the end of January. The tumour on the right of the uterus had increased. Pigmentation of lineæ alba, areola and follicles about nipple, and to a less extent, of whole lower abdomen. The sound entered 4 inches; cavity empty. Vaginal portion remarkably soft, and swollen. Anterior lip lying in vaginal orifice. Pulsating vessels at sides of vaginal roof. Extra-uterine foetation was now strongly suspected. Doubtful points were marked hardness and absence of fluctuation or ballottement of tumour. On the other hand, in a few days, distinct bruit de soufflé was heard. By the middle of February the tumour extended as high as the anterior superior spine of ilium, and an inch to the left of the middle line, and completely filled the space included within the

lines mentioned and ramus of the pubes and crest of the ilium. It was now decided to use electricity. A strong faradic current, as strong as the patient could bear it, was passed through the mass to the right of the uterus. One pole, terminated by an olive-shaped insulated bulb, was passed into the rectum against the tumour. The other pole was a large wet sponge, applied over the mass in the right iliac region. The current was allowed to flow from 5 to 8 minutes, and repeated daily five or six times. The size, pain and tenderness of the tumour were at first increased, but after the third application the bruit de soufflé was stilled. A few days after the cessation of the electricity, the size, pain and tenderness of the tumour was much reduced. Shortly afterwards patient began to have labor-like pains, with moderate bleeding. On the second day of these symptoms, examination showed dilation of the cervix, so that the finger easily reached the fundus and cornua of the uterus, and discovered a decidual membrane being separated. This was peeled off. The bloody discharge continued a few days longer. She now improved so rapidly that towards the end of March, at her urgent request, she was allowed to leave her bed, and go to a couch in the same room. But this was unfortunate, for the tumour now became very painful and tender, the surface over it assuming a blush, and becoming œdematous. Temperature rose to 103° Fah., and altogether her condition caused much anxiety. The question of opening and draining the supposed suppurating sac was seriously considered, but she soon began to improve in every respect, and in a few weeks was able to leave her bed. On the 15th June she was examined. She is still pale and thin, but has fair appetite and digestion. Has menstruated twice and profusely. Slight pain increased by exertion. Bladder irritable. The hypogastric tumour still present, but greatly reduced in size and tenderness. Per vaginam, all evidence point to recession of the mass. The uterus measures $3\frac{1}{2}$ inches, and is much firmer.

Dr. Gardner remarked upon the great interest of the subject, an interest arising out of the supposed rarity, of the condition, the difficulty of diagnosis, or, perhaps, rather the rarity with which a diagnosis is made: a tragic and fatal termination alone revealing the true nature of the case, and the recent successful procedures adopted for its treatment.

Lawson Tait has recently secured some remark-

able successes by abdominal section, ligating, and excising the sac and its contents. His operations have, for the most part, been done in patients who were suffering from the symptoms of rupture with impending death. But Thomas, Lusk, Garrijes, and others in the United States, have had equally remarkable successes in averting such an occurrence by an agent so powerful, so manageable, and yet, as all experience shows, so harmless, as the faradic electric current, applied as in the case now related, and in many others. It is an agent within the capacity of the merest tyro in medical knowledge. Dr. J. G. Allen, of the United States, is credited with the first cases so treated. To be used to the best advantage it must be applied early before the third month, when rupture of the sac so commonly occurs. The question of diagnosis would, of course, always be most important. This might be difficult, but would rarely be impossible if, in the presence of subjective symptoms, a careful bimanual examination (under ether, if necessary) were made. Dr. Gardner offered the case as a contribution to the literature of the subject, and believed it to be the first case of the kind published in Canada.

Dr. SHEPHERD said when he saw the case there were evidences of septic trouble. Tait says all these cases are tubal at first; he cuts down and removes the fœtus.

Dr. HY. HOWARD said he had only seen one case of extra-uterine fœtation, it came to full term. The tumour was aspirated, followed in 24 hours by peritonitis, convulsions and death.

Dr. WILKINS asked how the electricity caused the death of the fœtus, was it by exciting strong contractions of the muscular structures of the fallopian tubes.

Dr. KENNEDY said that he had seen two cases of extra-uterine fœtation. One of these had been reported to the society some years ago. In this case the woman came to him about the 5th or 6th month to engage his services. Her appearance was normal, and she felt quite well, at the end of nine months he was sent for as symptoms of labor had set in; on examination of the uterus found it empty and the actual condition diagnosed.

The case was explained to the patient and operation suggested, but she and her friends positively refused such assistance. The movements of the fœtus were quite lively up to this time but ceased in a few days, and in a short time after septic fever setting in she was sent to the General

Hospital. In the hospital she passed per rectum several fetal bones, sloughing having taken place between the sac and adjacent bowel. This patient died from septic poisoning, and the post mortem confirmed the diagnosis previously made. The second case came under his notice eighteen months ago. He was asked to see in consultation a patient supposed to have pelvic cellulitis. After examining her he coincided with the family doctor in this opinion; but on a subsequent consultation he had come to the conclusion that the case was one of extra-uterine fœtation. Afterwards during the absence of his confrere he took charge of the case. The patient had been married before and had two children by her first husband. The present husband was a strong, big man with whom intercourse was generally painful. Previous to her illness she had thought herself pregnant, but the menstrual discharge had continued, somewhat altered from the usual flow. When about 3½ months in gestation, and while dusting down the stairs, she was seized with a sudden severe pain in the abdomen, which almost caused her to faint. She was prescribed opiates and rest, and after a few days was up again. About ten days after she had a second attack and later a third. The last seizure was accompanied with a profuse flow and discharge of a membrane resembling the decidua. Abortion was supposed to have occurred followed by pelvic inflammation. Although pelvic cellulitis was diagnosed, Dr. Kennedy has now no doubt that the primary condition was a case of extra-uterine fœtation; the character of the seizure and the subsequent symptoms being such as are observed in tubal pregnancy. Fortunately death of the fœtus no doubt ensued, and the subsequent inflammation had encysted its remains. This patient was a long time ill but afterwards recovered. A tumor yet remains on the right side and coitus is still painful.

Dr. TRENHOLME had met with one well marked case where the fetus perished before its movements were felt. The patient becoming free from symptoms went to the seaside where she passed several small bones per rectum. There remained indications of induration. She has been in perfect health ever since.

Another case he was called to see, where the fœtus was as the sixth month. On examining the uterus it measured 7 or 8 in., was empty, but on the left side he found a bulging, and thought the case to be one of tubo-uterine fœtation. He scraped over

the bulged wall with a curette, and in 24 or 36 hours this was followed by expulsion of the fœtus. He thinks the electricity kills from shock not from exciting muscular contraction, as most likely the first seizure corresponded with the rupture of the tube, allowing the contents of the sack to fall into the abdomen, where there would be no muscles constricting it.

Dr. ALLOWAY said he had read of a woman dying at the age of 75 and in whose abdomen fœtal bones were found at the post mortem examination. When 22 years of age she had had symptoms of extra-uterine pregnancy.

Dr. GARDNER said that Tait found by examination that all cases were first tubal. Tait confines his operations to cases where rupture has occurred. Electricity is safe and simple to use. In this case electricity might have been used earlier. The electricity kills by shock to the child's heart.

Most cases are right sided. He believed there was not much doubt but that Dr. Kennedy's second case was one of extra-uterine pregnancy.

Dr. GURD mentioned that their patient was doing well, being able now to take short walks.

Dr. CAMERON asked if menstruation in this case had been abnormal. He had a case 8 years ago where the woman suffered greatly at each period as if from inflammation of the fallopian tubes. Might not these cases be caused by narrowing of the tube by contraction?

Dr. GARDNER said this explanation was a feasible one.

Dr. TRENHOLME said that a cellulitis with contracting bands might destroy the potency of the tube.

Dr. WILKINS said that a chronic diseased condition might destroy the cilia of the mucous membrane of the tube, and so account for the fructified ovæ not being sent down into the uterus.

Dr. LAPHORN SMITH read a short paper, entitled "Notes on Gynæcology, being some observations made during a month's visit to the Women's Hospital of New York. He began by referring to the great frequency with which the major gynæcological operations are performed, a frequency, however, which seemed to be generally justified by the results. Ovariectomies and hysterectomies were of daily occurrence, those of them which took place at the Woman's Hospital being performed in detached cottages, under the most perfect sanitary conditions. He thought, however, that they were

sometimes done in the face of fearful odds against success, the consequence being that the death rate was rather high. He spoke of the skill and coolness of the operators and the splendid training of the assistants and nurses. Although the operations were not done antiseptically in the strictest sense, yet every precaution was taken to insure cleanliness. Dr. Hunter takes special care not to allow a single drop of blood to enter the peritoneal cavity when performing hysterectomy: the peritoneum not being opened until all bleeding from the incision in the abdominal wall had been arrested. When the uterine tumor had been drawn through the opening, it is immediately wrapped in a carbolized towel, in which it is held, and the edges of the wound are enfolded in warm carbolized towels. Ether was the only anæsthetic used.

The operations for lacerated cervix and lacerated perineum are performed with still greater frequency; the former being done not only for the purpose of closing the rent but still more often as a rapid method of removing the hypertrophy and inflammatory exudation of subinvolution. The operator made it a rule to be satisfied with nothing short of the complete removal of the cysts formed by the deceased nabothian glands, digging down and removing indurated tissue almost as far as the internal os. The needles used were short, round, slightly curved, and having one surface ground flat near the point, and for sutures a No. 26 pure silver wire attached to the end of a plaited silk thread was generally employed.

The operation for lacerated perineum is also very frequently done in many cases for the cure of rectocele and displacement of the uterus. The reader stated that he frequently met with cases of prolapsus uteri in his practice, in whom the vulva was so large that no form of ring pessary could be retained; all such cases were suitable for operating.

He also remarked that in these two operations the scissors and tenaculum have completely taken the place of the knife and forceps.

Two other instruments which he found in general use were the Wylie dilator and the Thomas blunt curette, the advantages and immunity from danger he set forth at some length; nevertheless it is better to keep the patient anæsthetized. The reader then related the various uses to which the tamponnade of the vagina or columning is put to; and he stated that it has very largely taken the place of solid pessaries, especially when there is an inflammation in or about the displaced organ.

He stated that the introduction of cotton tampons soaked in glycerine or glycerine of tannin and the use of the hot water douche have marked a new era in the treatment of pelvic cellulites, subinvolution of the uterus and the inflammatory affections of the generative organs.

He concluded by describing a case under Emmet's care, in which that distinguished operator had intentionally made a vesico vaginal fistula for the cure of chronic cystitis which had been otherwise intractable. After three or four months the cystitis was cured and he closed the fistula without much difficulty.

Progress of Science.

THE GULSTONIAN LECTURES ON MALIGNANT ENDOCARDITIS.

In the *British Medical Journal* of March 7, 14 and 21 are found the Gulstonian Lectures delivered by Prof. William Osler, of the University of Pennsylvania. These lectures give the most complete exposition of the subject of ulcerative endocarditis, or, as he prefers to call it, malignant endocarditis, which has yet been made.

There may be an acute or a chronic form. Anatomically, the acute form may be subdivided into various forms, as the plastic, papillary, verrucose, fungous, ulcerative, etc.; etiologically, the varieties are as numerous as the diseases in which it occurs, as puerperal, scarlatinal and the like; clinically, we have two classes, the simple and the grave. Cases are said to be primary or secondary, but there can be found to exist no essential anatomical or pathological differences. Anatomical classification would group together cases widely different, clinically. The term ulcerative is in general use, but does not include those cases where no actual destruction of tissue has taken place, and yet manifest severe constitutional disturbance. The clinical classification into simple and malignant cases, whether ulcerative or vegetative, is the one of most practical value.

Malignant endocarditis occurs as: 1. A primary disease of the lining membrane, rather predisposed to by constitutional debility or previous valvular disease; 2. A secondary affection to many diseases, especially rheumatic fever, pneumonia, scarlet fever, diphtheria, ague; 3. An associated condition in septic processes, traumatic or puerperal. The lecturer then discusses in order the anatomical, the clinical, and, lastly, the etiological and pathological characters of the disease.

The lesions, by no means uniform, may be vegetative, ulcerative or suppurative, either alone or in combination, and in all degrees of intensity.

He relates a case which proved fatal, the endocardium showing simply vegetations without ulceration. The combination of ulcerative and fungating outgrowths he thinks the most common condition. The ulceration may vary from simple abrasion to destruction of a valve or deep involvement of the muscular substance. The vegetations vary considerable in appearance and consistence, from soft, greyish-white masses to large cauliflower excrescences, with deep jagged fissures, or long pendulous, stalactitic masses. The friction of these masses against the wall may produce numerous smaller vegetations. Conservative changes may take place; fibroid induration of the deeper parts, the superficial remaining unchanged or necrotic. Two conditions are to be distinguished from malignant endocarditis, namely, atheromatous degeneration in sclerotic valves, and the firm, white globular thrombi of the auricular appendices and of the interstices of the columnæ carneæ of the ventricles.

Histologically, fresh endocardial vegetations are made up of round and fusiform cells derived from the sub-endothelial layer. Varying with the rapidity of the growth the mass will resemble granulation-tissue or a fibrous outgrowth. Sometimes a cap of fibrin is deposited on the growth and in this are found, more or less abundantly, the blood-plates of Bizzozero.

The larger vegetations consists of a granular material, composed of altered and dead tissue elements, fibrinous exudation and colonies of micrococci. He regards the micrococci as constant elements in these vegetations. They vary greatly in number and arrangement, occurring singly or in groups, most abundant in the deeper layers. Some of the smaller vegetations seem almost exclusively made up of them. Klebs has distinguished two forms, one, found in septic, the other, in rheumatic cases. Small elongated bacilli have also been found, and Cornil, having found the bacillus tuberculosis in endocardial vegetations in a case of phthisis, expresses the opinion that we shall, before long have accurate knowledge of a variety of micro-organisms in endocarditis, depending upon the nature of the primary disease.

The local effects of the ulcerative changes are important. Perforation of a valve-segment is extremely common, the hole being clean-cut or irregular, or sometimes great fungous vegetations may completely close and conceal the perforation. Erosion of the chordæ, ulceration of the heart-muscle, leading to perforation of the septum or of the wall of a chamber, the production of aneurisms of the heart or vessels, are some of the effects.

Sclerotic or malformed valves are especially prone to acute inflammation and fusion of two aortic cusps is nearly always followed by sclerotic changes.

Of associated pathological changes we have, first, those connected with the primary disease, and, second, those resulting from embolism. These

latter may be divided into "those without embolic processes, cases in which the infarcts are simple, not suppurative, those in which there are innumerable suppurative infarcts," and mixed cases. In marked malignant cases these embolic features may be absent. They may not be suppurative, but simply hæmorrhagic, though in traumatic and puerperal cases the infarcts are invariably septic. The spleen is most often the seat of infection, then the kidneys. The lungs are usually affected when the right side of the heart is involved. These infarcts may be found also all along the gastro-intestinal tracts, forming in some instances numerous miliary abscesses. Gastric ulcer has resulted in this manner. The liver may be similarly affected, and pleurisy and pericarditis are not uncommon complications. The cerebral lesions may be meningeal or of the brain substance, manifested by meningitis or various paralyses.

It would be difficult to present a satisfactory clinical picture of this disease. The general symptoms are those of a febrile affection of variable intensity, "ushered in with rigors, pain in the back, vomiting, headache, etc. Prostration, delirium, sweating and other signs of severe constitutional disturbance are generally present. Arising in the course of some other disease, the symptomatology partakes of that of the primary affection, additional symptoms and signs manifesting themselves, owing to the local cardiac implication and its results.

So diverse are the features of malignant endocarditis that Dr. Osler has attempted to arrange them into groups. In the first group are placed those cases in which the endocarditis is merely a part of a septic or pyæmic state, resulting from an external wound, a puerperal process, or an acute necrosis, about 18 per cent. of the doctor's cases being of this nature; the septic cases do not strictly come within the province of the physician, but must be taken into account in a description of the disease. These cases arise through the venous system.

In the pyæmic cases, the clinical features are of a decided pyæmic type, the metastatic lesions are in the territory of the arterial system and have their source in the heart. Two varieties of these cases may be made out: 1. Those of ordinary pyæmic type; 2. Those marked by a singularly regular intermittency of the pyrexia. The cases may resemble so closely cases of quotidian or tertian ague as to make it almost impossible without a necropsy to differentiate, though the absolute failure of quinine may cause one to question the diagnosis of malarial trouble. The typhoid type is, however, by far the most common. The main feature is the irregular character of the fever, but sometimes the cardiac affection being masked, the course of temperature may so simulate typhoid as to make diagnosis difficult, except after death.

In the second group are placed the cardiac cases that is, those occurring in patients the subject of

valve-disease, who suddenly show evidence of fresh endocarditis, accompanied by febrile symptoms. These cases may present features of the pyæmic, typhoid or cerebral types, in some may be intensely acute, in others mild and chronic. In the third group are the cerebral cases, in which the earliest observed symptoms, or the most marked, are cerebral or cerebro-spinal. Some are first seen in coma, or the symptoms may be those of meningitis.

The course of endocarditis presents many variations, some cases running their course in a week, others lasting even two or three months, though rarely prolonged beyond four or five weeks.

As regards diagnosis, this is frequently so difficult that many skillful diagnosticians have been unable to discover the trouble until *post mortem*. In the group of cardiac cases, the diagnosis is easy enough, the irregular type of fever taken with the physical signs being sufficient, but in other cases, the cardiac affection not being apparent, it may, be difficult to differentiate from quotidian or tertian, intermittent, from typhoid, typhus, cerebro-spinal meningitis or even hæmorrhagic small-pox. In pyæmic cases, the diagnosis must be made between ordinary septic infection from a wound and auto-infection from a primary endocardial inflammation.

In determining the etiological relations of malignant endocarditis, Dr. Osler has gone over the records of 209 cases. 37 of these occurred in connection with traumatic and puerperal pyæmia, in 45 no record of previous disease, in 127 cases there was a possible connection with past or existing disease. Middle life gives the greatest number of cases, young children being rarely victims; of 160 cases (exclusive of traumatic and puerperal), 99 were males, 61 females. Debility and addiction to drink predispose; sclerotic valvulitis is a very important etiological factor. Of the 127 cases, secondary to other disease, in 53 there was a history of rheumatism, past or present, in 54 the attack was associated with pneumonia, diphtheria was rarely associated, with dysentery a few cases, in the eruptive fevers a few cases, and even in the course of malarial fever a few cases have developed.

With regard to pathology, Dr. Osler speaks with due caution, not allowing himself to be carried away by the attractiveness of the theory. Accepting as a plausible explanation the mycotic pathology of malignant endocarditis, he yet feels hesitation in urging it. We do not yet know with sufficient accuracy the frequency of occurrence of the microbes in the disease, we want to know the varieties of microbes in secondary endocarditis and their relation to those of the primary disease; and, thirdly, we are only on the threshold of inquiries concerning the culture of these organisms, the microscopic characters of their growth and the possible experimental production of endocarditis.

New Orleans Medical Journal.

CALOMEL IN THE TREATMENT OF OTORRHOEA.

Dr. J. Gottstein, in the *Archives of Otolaryngology*, September to December, 1884, strongly recommends the use of calomel in the treatment of otorrhoea. He says: During the past year I have used the calomel by way of trial in a number of cases that have seemed suitable, especially such as could be submitted to daily observation.

I have satisfied myself (1) that the remedy is absolutely free from irritation to the mucous membrane of the middle ear; (2) that it forms neither upon nor in the mucous membrane any precipitate difficult of removal; (3) that surprising results are often obtained under its use.

Accordingly, since the beginning of the present year, I have, in my private practice as well as in my polyclinic, employed calomel in the treatment of all cases of otorrhoea in which, following Bezold's direction, I had previously made use of boric acid alone, or as a supplementary means. I withheld the calomel only from such patients as, coming from a distance, I had an opportunity to see but once.

My observations now exceed eighty in number, so that I feel justified in communicating the results of my experience with this method.

My method of procedure is as follows: The ear is, in the usual way, syringed carefully with a weak sublimate solution (one-tenth per cent.); the residue of the secretion is forced into the external meatus by the employment of Politzer's method, and then removed by syringing; and, finally, the ear well is dried with cotton.

The calomel (vapore parat.) is then blown in through a powder-blower,* and the auditory canal closed as well as possible by means of cotton. The further treatment is the same as with the boric acid.

That on which I lay the most stress is that calomel, in my opinion, has a much more certain and decided antiseptic action than the boric acid.

I am anxious to avoid the error into which those authors fall who over-estimate the value of the remedies recommended by them. Calomel also fails in some of the cases in which powerful antiseptic action is desired, because considerable tissue alterations in the drum cavity are absent. Yet I have, with no method of treatment, not even with the boric acid, attained such speedy results as with this remedy in acute as well as in chronic forms of otorrhoea.

The calomel is also suitable, as is the boric acid, for employment after operations in the middle ear, cauterization with nitrate of silver, the use of the

*In my consultation hours I make use of the powder-blower of Kabierski (*Centralblatt für Chirurgie* 1883, No. 33), which I have found, after long trial, the most suitable for the treatment of the ear as well as of the nose and larynx.

It has the advantage that it does not need to be filled for each case, that the insufflation can be made with ease and accuracy during the examination of the parts, and, finally a separate tip can be used for each patient, a measure necessary for the attainment of a thorough antiseptics.

galvano-cautery and in conjunction with the alcohol treatment. In these cases, the powerful antiseptic action of the remedy is conspicuous.

INCONTINENCE OF URINE IN CHILDHOOD.

Dr. Eustace Smith, in his recent work on children, gives the following: ℞ Tr. belladon., f ʒ j; potas bro m.; gr. x; infus. digitalis, f ʒ i j; aq q. s. ad. f ʒ ss. M. This is one dose.

He adds strychnia when the affection occurs both day and night. This author finds a great tolerance of belladonna in children, and believes that it should be pushed to its toxic effect when the case does not yield readily.—*Medical Bulletin*.

Prof. S. W. Gross says it is a mistake to apply a poultice to an acute abscess after its contents have been evacuated. The endeavor should be to prevent and not to encourage the further formation of pus. To do this the cavity of the abscess should be syringed out with a 1 to 1000 solution of mercuric bichloride, and the walls brought together by compresses and bandage, and union allowed to take place by granulation. If the abscess be of large size a drainage tube should be left in for a couple of days until the serious oozing has been reduced to a minimum. The tube should then be taken out and the walls brought close together. If the healing process be delayed by the development of flabby oedematous granulations they can be stimulated to healthy action by the injection of a three per cent. solution of carbolic acid or the application of chloride of zinc gr. iij, aqua ʒ j.—*Med. Bulletin*.

THE TREATMENT OF CARBUNCLE WITHOUT INCISION.

In the course of the paper on this subject before the American Medical Association, by Dr. L. Duncan Bulkley (*Med. News*, May 9, 1885), the author related the case of a gentleman, aged 56, large and florid, who suffered for several years with eczema of the left foot. He was also diabetic. Following upon this eruption was a large carbuncle. He applied to this tumor, thickly spread on the woolen side of lint, the following ointment:

R. Ergot. fl. ext.,	ʒ ij
Zinci oxidi,	ʒ ss
Unguent. aq. rosæ,	ʒ ij.

Covering this was cotton-batting, to prevent blows or injury. He was given sulphite of calcium $\frac{1}{4}$ gr. every two hours, and occasionally the following:

R. Magnesiae sulphat.,	ʒ iv
Ferri sulphat.,	ʒ j
Acid. sulphurici dil.,	ʒ iij
Syr. zingiber,	ʒ j
Aquæ,	ad. ʒ iij. M.

S.—Teaspoonful in water through a tube three times daily.

At bedtime Dover's powder was administered, to give rest when required. The result of the treatment was cessation of pain, rapid resolution, and a cure, except some induration, in eighteen days. The man continued at his work.

He summed up his paper as follows :

1. Avoid any irritation, as pressure, blows, etc.
2. Avoid warmth and moisture, as in poultices.
3. Avoid incisions.
4. Do not use stimulants.
5. Protect the inflamed parts with the ointment given above. The solid extract of ergot may be used if desired. Spread the ointment at least one-third inch thick.
6. Use sulphite of calcium every two hours for its effect upon suppuration.
7. Employ good, nutritious food, and fresh air.
8. A sedative, if desired, and occasionally the laxative and refrigerant tonic as above.

The advantages are :

1. Short time required for recovery.
2. Cessation of pain.
3. No scar.
4. No operation.
5. No detention from business.

In the early treatment of gonorrhœa, Prof. Gross condemns the use of injections. His plan is as follows : If possible, put the patient to bed ; give him at the outside a purge, by administering Epsom and Rochelle salts, each 2 drachms, in lemon syrup. Allow no meat or any stimulating articles of diet, etc. Malt liquors do more harm than alcoholic, so interdict both. No tea or coffee, but give him milk, eggs and some oysters, etc. Three times daily he is to hold the penis in a cup of hot water—quite hot. Keep the organ there for five minutes at a time, then wipe it gently each time.

The internal treatment will be by the "antimonial and saline mixture" :

R. Antimonii et potassii tartrat, 1-10 grains.
Magnesii sulphatis, 2 scruples.
Morphiæ sulphatis, 1-16 grain.
Tinct. aconiti radicis, 1 drop.
Liquor potassii citrat., $\frac{1}{2}$ drachm.
Olei limonis, $\frac{1}{2}$ drop.
Elixir. simplicis, $\frac{1}{2}$ ounce. M.

Sig.—Ter die.

By this treatment the urine will be rendered bland and unirritating. Should the urine persist in "scalding," then add to the above prescription 10 drops tinct. cannabis indicæ. To prevent cure chordee, order at night a suppository of—

R. Extrat. opii,
Camphoræ, aa 3 grains.

In the course of four or five days the discharge from the urethra will look more like laudable pus ; then order an injection ;

R. Hydrargyri chloridi corrosivi, 2 grains.
Aque destillat., 1 pint.

Sig.—With a syringe that holds an ounce, inject into the urethra—having first "flushed" the canal several times by voiding urine—and retain the fluid for five minutes.

Internally, a useful combination is that used at the out-door department of the hospital, and consisting of—

R. Cubebæ, 2 ounces.
Alum. pulv., 1 drachm.

Sig.—Of this take a heaping teaspoonful in a tumbler of water ter die ; the dose to be increased.

Should the discharge per urethram still persist, use an injection of—

R. Liquor. plumbi subacetatis, 1 drachm.
Aque, 10 ounces. M.
Or—

R. Plumbi acetatis, 2 grains.
Zinci sulphat, 3 grains.
Aque, 1 ounce. M.
Or—

R. Acidi tannici, 2 grains.
Aque, 1 ounce. M.

As an application to bed-sores, Prof. Bartholow recommends : Alum, $\frac{1}{2}$ ounce ; whites of four eggs, and tincture of camphor, 1 $\frac{1}{2}$ ounce.

THE TREATMENT OF PNEUMONIA.*

By WILLIAM GILCHRIST BURNIE, M.D.

During the last thirty years a great change has taken place in the opinion of the profession with regard to the treatment of pneumonia. I believe we have arrived at more correct notions in the matter of this important disease than formerly obtained. Our precursors were more remarkable than we are for treating diseases heroically, for giving them battle, for knocking them down. We do not object to the process, provided it be attended with no collateral or ulterior mischief greater than the evil overcome. Inflammation, of which so much used to be heard, and of which comparatively so little is heard now, used to be a frightful bugbear. The practitioner's mental eye was riveted on that dire symptom, and other conditions present, and especially prospective, were consequently apt to be overlooked or not anticipated. I remember long ago a young enthusiast exclaiming, "Inflammation of the lungs!—why should we allow inflammation of the lungs to get the better of us? Can't we drain every drop of blood out of the lungs rather than be beaten?" Other *desiderata* were here evidently overlooked, and notably the main object, the preservation of the life of the patient. My friend but represented

*Read before the Bradford Medico-Chirurgical Society, March 3.

in an exaggerated manner—caricatured—the opinion of the day—he was influenced by what he had been taught. Terrible thing this teaching—this education! It is wonderful and dreadful what we may be taught to believe and to act upon.

About fifty years ago a Cyclopedia of Practical Medicine was published by Drs. Forbes, Tweedie and Conolly. This work then represented the opinions of the profession as much as the Reynolds' the Quains, and the Ziemssens do now. I find in the Cyclopedia published in 1834 the following observations on the treatment of pneumonia:

"Cullen advises that blood be drawn either until there be remission of the pain and relief of the respiration, or if these do not appear until symptoms of commencing syncope come on. This, we believe, is the plan most commonly pursued in this country, and at this first bleeding a quantity varying from 16 to 40 oz. of blood may be taken before either of these effects is produced. By some practitioners a much larger quantity has been taken without producing syncope, even to the amount of 70 or 80 ounces; but we consider it doubtful whether it is ever advisable to exceed the highest quantity before stated. Cullen observes that a first bleeding, however large, will seldom prove a cure of the disease; and as the pain and other symptoms recur, the measure must be repeated, even in the course of the same day, to as full an extent as before; and although its greatest efficacy is in the first three days, this recurrence will make a repetition of the measure proper at any period of the disease, especially within the first fortnight. With this practice may be contrasted that of many Continental physicians, who never take more than twelve or sixteen ounces daily, and limit the bleeding to the first two or three days, under the apprehension that larger and later depletions interfere with the natural crisis of the disease."

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"It is a satisfactory proof of the superiority of the English method of practice to find that the best authorities in France now advocate free depletions much more than formerly. Andral and Chomel recommend blood-letting to sixteen or twenty ounces, practised, if necessary, two or three times a day, the first days of the disease, and more moderately afterwards. Some of their countrymen still more recently have prescribed two or three pounds to be drawn every twelve hours at the commencement of the inflammation, and if the dyspnoea continues, eight or twelve ounces daily afterwards."

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"Expectant medicine is both irrational and dangerous."

I need not pursue the article; it goes on at considerable length to discuss the methods of this extensive depletion. It goes on to discuss how best to produce a feeling of faintness in the patient

—the effect of opening two veins at once—bleeding in the semi-erect posture—how "nervous constitutions and those liable to palpitations and fainting fits must be coaxed gradually to bear a full depletion."

"Many things have happened since then!" We have travelled a long way. Fifty years after these words were published we have in "Quain's Dictionary of Medicine:"

"The heroic methods of treatment (of pneumonia) by venesection, tartar emetic, &c., so much in vogue in the past, had for their object the controlling or cutting short of a local affection of the lung; hence the unfavorable results which attended them. As these methods have been abandoned, and there has existed a more correct appreciation of the pathology of the disease, the mortality attending it has diminished."

To explain the diversity some (and among them learned professors) have proclaimed an alteration in the human constitution, or that the disease has changed its type. I remember seeing a hale old woman of 93, and she told me seriously that the climate was altered since her youth—that the seasons were now much colder than they used to be. We smile at the old lady, otherwise shrewd, being blinded to the real cause of her feeling; but is not the change of type doctrine on a par with her notion. If it is said the change of type is in the disease and not in the patients, the belief is equally ridiculous.

We flatter ourselves that the change is to be accounted for by our superior knowledge and by the advance of physiological and pathological science. Changes in the management of disease must first be suggested by physiology and pathology, but the results must be the criterion; for these branches of knowledge cannot be accurate enough to be infallible. There exist so many possibilities of oversights and of unknown conflicting and disturbing circumstances that physiological reasonings about the treatment of disease must stand the test of experiment—must only be accepted *à posteriori*.

I do not suppose that we have arrived at the most correct treatment of pneumonia—certainly not of many other diseases. The last fashion (as with the women) is always the most captivating. Still, I do think there has of late years been a rational and defensible change in the treatment of pneumonia. At the same time, the swing of the pendulum may have carried us a little too far, and may have made us neglect many useful practical facts in vogue among our predecessors. The complete setting aside of blood-letting in pneumonia and in some other diseases is a case in point. No doubt blood-letting was carried to a ridiculous—to an injurious extent—was accredited with benefits which it never conferred, and failed to get deserved discredit for great evils that it brought about. But I have no doubt that much mischief is now often done by the omission of that potent remedy—especially when it is required for

the relief of cardiac and respiratory distress—from urgent pectoral embarrassment.

Take an ordinary case of acute pneumonia—take that of a man of thirty-five. The disease is more common, by-the-by, in the male sex. Let the patient be fairly developed [and of average weight and strength. He has a pulse of 105. He has 35 respirations in $\frac{1}{2}$ the minute. He is hot (temp. say 103 deg.) He is anxious. His breathing is shallow. He has a pain in the side (say the right one, as that is more usually affected than the left). He has been forty-eight hours ill when you were called in. The short period of *malaise* had been overlooked. You were sent for when he got into difficulties (as usual). What would you do? Bleed? No. And yet the medical man attending your grandfather would have been looked on as a homicide if he had not flourished his lancet and abstracted some thirty or forty ounces of blood. Give him antimony? Well, not in the poisonous doses that used to be frequent. Antimony, however, is a valuable depressant in robust constitutions and in small doses, acting on the skin and relieving by diaphoresis, might not be contra-indicated—possibly used with great advantage. What is to be done for this patient is this: Have a large airy chamber—a thing very difficult to get at in many cases of private practice if there be not a sufficient amount of pecuniary competence. Keep that chamber at a temperature of 60 deg. or 62 deg. I do not think that a higher temperature is desirable in pneumonia. I would say 65 deg. to 67 deg. in broncho-pneumonia, and 72 deg. to 75 deg. in bronchitis. The chamber should be well ventilated with *no* or *few* draughts. Here is a difficulty again. But draughts are not so injurious in pneumonia as in bronchitis. Neither is the dryness of the air; though in the case of the air being too dry, by the action of a fire or the prevalence of a dry north or east wind, some means may be taken to impart the mollifying influence of water. This can be done by setting a basin or basins in the room in which is to be poured hot water. We differ here from bronchitis again, where a moist air is necessary to soothe the irritated mucous surfaces, and the bronchitis kettle can be usefully brought into play. *Rest* is wanted for our patient—*anatomical* and *physiological*. Under the first heading may come the position of the patient. He must be so placed that the motions of respiration may be as free as possible; and under the second he must not be bothered with business or with mental processes of any sort, and especially be debarred from talking. He has quite enough to do with that constant hacking cough of his, and with getting breath. Thus, by means of a fitting temperature, general composure, and physiological rest particularly, the patient will in the course of nature probably arrive at a crisis before the tenth or eleventh day. But nourishment must not have been omitted in the meantime. You cannot load him with heavy food suitable for the body in a state of activity,

for the process of digesting it would but interrupt what I have called physiological rest. Milk and animal broths seem the best foods, especially the former, the latter being only used as a relief from the constant exhibition of the first.

A Dr. Robert Hamilton opposed the exhibition of too much fluid as a component in the materials of nutrition, on the ground that it loaded the vessels. There seems some reason in this. An egg beaten up (when wine is in the course of exhibition it can be conveniently mixed with it) is an appropriate article of diet.

After the crisis you have the sufferer pretty much exhausted. Now comes the corroborative treatment—the rebuilding-up. It has always appeared to me that a great objection to the blood-letting system was the waste of that precious fluid which in convalescence was to come in so usefully. We throw away our capital—we have no opportunity during the disease to increase it and now we find ourselves bankrupt. No wonder that the anti-venesectionists can bring statistics to prove that blood-letting increased the mortality—increased the mortality! That was a curious characteristic of a method of cure. In convalescence, as there is a tendency to relapse, we must be more careful in many respects than during the severity of the attack. We must be more guarded in reference to draughts and the taking of cold. We must feed up the patient with mild nutritious food and assist the system in its assimilation with more or less of wine or other stimulant. We must re-fortify the constitution with iron—perhaps cod-liver oil—with cinchona or quinine.

But it may be said that this is all expectant, or nearly so. Well, so be it. I think that the true system of the treatment of simple pneumonia should be expectant. A gardener cannot force a plant to grow by violence. His function is to create, supply or promote such surrounding circumstances as will help his plant to grow. Our object should be to remove obstacles to the patient's *growing* better, to supply circumstances to enable him to attain the grand point which the *vis medicatrix Nature* is always aiming at.

But would I reject *heroic* measures when needed? By no means. Have your lancet ready, your leeches, your antimony, and your alcohol. Cases do not always proceed in the ordinary or typical manner. Sometimes you may have very desperate cases—desperate from the nature of their causation—from complications—from peculiarities in the patient or from incidents in their course. In a very plethoric subject laboring under a severe attack—temperature high (say 105 deg.), with a rapid pulse (say 120)—great dyspnoea—the right side of the heart staggering under the block, the best thing to be done is to draw blood and to draw it freely, never forgetting, however, that it is your capital account you are drawing from. Marked relief is procured in this manner; and that relief clears the way for us—clears the blocked line and

enables us to travel more smoothly—bring us back to a state of things more akin to the typical or ordinary pneumonia. The amount of dyspnoea—the imminence of apnoea—the strength of the patient—the amount of blood to spare—and many other circumstances, must be collated and reasoned on the practitioners' mind. The passive congestion of the aged, even when associated with a distressing state of the circulation and respiration, does not indicate bleeding—contra-indicates it even. So does a constitution vitiated by the prolonged use of alcohol. In young children a leech or two takes the place of venesection. But even in weak patients from breathlessness and pulmonary distress, and an engorged right side of the heart, the question of venesection may arise. Every case, in fact, of pneumonia must be treated on its own characteristics. You have in the weakly the debilitating effect of the bleeding to anticipate, but sometimes you must run the risk to save the patient from dissolution, or a disorganised state of the lung. Chronic pneumonia degenerating into phthisis—and tubercles were no doubt the frequent sequels of the depletory method. On the whole, then, I should say that blood-letting in pneumonia should not altogether be banished from our Armamentarium—quite the contrary: but that it should be resorted to with deliberation, thoughtfulness, calculation and caution. I hope the use of the lancet is not so obsolete in rural neighborhoods as it is in towns, for I am sure the hardy and robust agriculturist must often present a fair object to withstand easily the effects of depletion when it is required.

In *antimony* I do believe that we have a very valuable drug. Like bleeding, it used to be pushed to a very great extent. People, in what we will now call ancient times, forty or fifty years ago—crammed the patient with antimony after bleeding—used to nurse the patient into tolerance of the drug when it was intolerable in order to gain advantage from its specific virtues. Some bold heretics (principally on the Continent) depended on antimony without bleeding, and gave it in very frequent and large doses. Dr. Macintosh (a very good practical physician) depended much on it, saying that it “reduced the scale of the system.” I have not time in this paper to elaborate the cases and the circumstances in which I think antimony should be resorted to, but I may remark that it will often come in as a depressant when there are reasons against bleeding, that its diaphoretic and expectorant action are generally beneficial.

With regard to *veratria* and *aconite* I can say nothing. Perhaps some members will kindly favor us with their experience on these two drugs.

Calomel and opium, again, was a favorite medicine with our fathers. I believe calomel and opium can be used now with discretion advantageously. My experience is that the bowels should be moderately relieved, and the irritative

diarrhoea sometimes accompanying or following pneumonia should be soothed, excessive alvine discharges checked.

Opium used to be given to allay the pain and the cough. This is a dangerous expedient, though a dose of opium may in certain circumstances be allowable. It is not, however, so dangerous in pneumonia as in bronchitis.

Warm cataplasms seem to relieve the local pain in the early stages. Leeches, too, sometimes give local relief, though the objections to their use on account of the loss of blood must be the same, though in a minor degree, as those to abstracting blood from a vein.

Blisters are sometimes useful, but seldom. Their great use is in pleurisy, and we sometimes have pleuro-pneumonia, generally indeed some pleurisy, in the viscera pleura covering the affected lobe or lobes.

Senega—or senega with ammonia—I consider most useful in the exhausting expectoration succeeding pneumonia, especially in the aged.

But alcohol, we had nearly forgotten this potent drug. Here is a hobby, too, that has been over-ridden by a certain school. I consider alcohol a most valuable help to us, very valuable, indeed, indispensable; but that it has been used by its advocates indiscriminately. The use of alcohol wants great discrimination. In the phlogistic forms and stages of pneumonia I think it is decidedly contraindicated, but where there is flagging I think it necessary. I think it necessary when there is exhaustion, when there is a dry tongue, when there is a cardiac failure, and when there is delirium. The pulse is not so high in pneumonia as might have been expected, at least it is low in comparative relation to the respiration. When the pulse gets over 120 alcohol is required. And alcohol, in the shape of wine, is most useful after defervescence as part of the usual diet. In the nature of this paper one can only speak of pneumonia in the abstract. I have all along wished it to be understood that in each individual case we are subject to modification from concomitant causes. Digitalis is often useful, and from different reasons, and in different doses, sometimes to depress excitement, and sometimes to stimulate the heart.

Another form of treatment, more in vogue in Germany than in England, is the application of cold. The reduction of the temperature by cold I have no experience of, shall be glad to hear observations from any member who has. We could not apply cold to the affected locality at the same time as a warm cataplasm. But besides this, in the case of hyper-pyrexia I should think it better applied to the head than to the chest.

In senile pneumonia, in pneumonia associated with constitutional debility, in the pneumonia in or after fever, or the exanthemata, in septicæmic pneumonia we should, in my opinion, be conservative, corroborative, and supportive. In most of these conditions the complaint is principally

hypostatic. In what I have called the "ancient days," when a crepitation was detected from any cause, out I fear the lancet was apt to come, and blood taken away from the reservoirs when fulness and force were what was required. Such cases want a greater degree of warmth than has been specified, mild, continual, easily digested articles of food, with a regular adapted and prescribed supply of wine. Depletion is out of the question. There is great weakness after measles. I have seen inflammation of the lungs succeeding measles treated with a leech, and the bite bleeding excessively, I have seen the child die. Bleeding is as inappropriate after measles as a blister after scarlatina, from which I have seen another child die. Good nursing in all cases of pneumonia is of the first importance, and very especially in the pneumonia of the aged and feeble.

I may be permitted a few words on the prevention of pneumonia and prophylaxis. Pneumonia is more prevalent in temperate, humid, variable climates than in countries characterised by a clear cold dry air. It is more prevalent among men than among women, as the former are more exposed to vicissitudes of temperature. It is more common among the indigent than the well-to-do; obviously enough, as the latter are more able to take care of themselves. These facts show that the disease is preventable. In a variable climate like ours, where the thermometer will sometimes drop twenty degrees in as many hours, people should be on their guard. I believe one of the most satisfactory methods of prevention, not only of pneumonia but many other diseases, is the proper protection by warm habiliments of the surface of the body. Flannel is invaluable, and ought to be worn by everybody in these islands.

Then with regard to prophylaxis, it has often occurred to me that treatment in the stage of indisposition preceding the rigor may very reasonably be supposed to prevent the development of the malady. We cannot prove that we prevent it, because we are not sure that it would have occurred. The careful and prudent often prevent ills without being able to demonstrate that they have done so. I believe that rest, extra clothing, warm *pediluvia* and febrifuge drinks taken when the patient feels out of sorts—the period of *malaise*—when a person "feels that he has taken cold"—will often hinder ulterior mischief. The best medicines in such a case are liquor ammoniæ acetatis, or a moderate dose of Dover's powder. It is a notable fact that there exists a personal proclivity to pneumonia, whether a preceding attack predisposes to a subsequent one or not does not matter. Now, when a person disposed to lung inflammation adopts, with good reason, prophylactic measures, and succeeds with them, there must be a fair presumption that he has warded off a serious illness. At all events in his circumstances it is his duty to take time by the forelock.

In introducing for discussion the treatment of pneumonia, I have had no novel or surprising method to advance, nor do I believe in the possibility of any such novelty being forthcoming. What I would urge is that the complaint should be treated on rational and common-sense principles, carried out in accordance with our physiological and pathological knowledge. I would not despise certain methods because they are old, nor sneer at recent ones because they are new. I think it is our duty to find out and accept what is proved to be beneficial, never forgetting to balance most carefully the divergent bearings that are existent in most cases.—*Dublin Med. Press and Circular.*

CHLORATE OF POTASSIUM TO PREVENT ABORTION.

Dr. E. S. McKee reports (*Lancet and Clinic*) the case of a woman who aborted ten times consecutively, having conceived twice by one husband and eight times by another. These abortions occurred in the period between the fifth and eighth month. Seeking professional aid when pregnant for the eleventh time, Dr. McKee could find no evidence of syphilitic or other disease to account for the repeated abortions. Chlorate of potassium was ordered, in doses of fifteen grains three times a day, and was continued with but few intermissions until the end of pregnancy, when a healthy boy was born.

In the following pregnancy the same treatment resulted in the birth of a healthy boy at term. His opinion is that the abortions were due to fatty degeneration of the placenta, which in the last two pregnancies was prevented by the chlorate of potassium.

A LECTURE ON NETTLE-RASH.

By MCCALL ANDERSON, M.D., Professor of Clinical Medicine in the University of Glasgow; Physician to the Western Infirmary, etc.

URTICARIA (URTICA—A NETTLE) NETTLE-RASH —URTICAIRE—NESSELAUSSCHLAG.

The *symptoms* of this disorder are very familiar to most persons, seeing that the rash is identical with that resulting from the sting of the common nettle (*urtica urens*); hence the term nettle-rash. It makes its appearance in the shape of circumscribed elevations, rarely larger than the fingernail, which are rounded or oval, or which assume the form of segments of circles (pomphi or wheals); and when the patches are present in their most typical form, the center of each is pale, while the periphery is red. This eruption is accompanied by itching, burning, or stinging sensations, which are increased by scratching, and are often very distressing; but its most remarkable character—that by means of which it can be distinguished from most other eruptions, and which often enables us to say that a rash is a member of the nettle-rash group, although it does

not assume the typical character—is the wonderful rapidity with which it appears, and its transient character; for, in a few minutes, it may be fully developed over the greater portion of the body, and within an hour it may all have vanished, although sometimes two or three days elapse before it disappears; it is never followed by desquamation. Its tendency to resolution is indicated by the wheals feeling softer, by the fading of the peripheral redness, and by the subsidence of the irritation. Occasionally, vesicles or bullæ make their appearance upon the patches if the inflammatory action run high, so that the careless observer might mistake the eruption for herpes or pemphigus. And not unfrequently the rash is accompanied by œdema, especially where there is much loose cellular tissue; or œdema may take the place of the eruption—oftenest on the hands and face (*urticaria adematosa*). The extent of the rash is very various; sometimes it is partial, being limited to the hands or face, while at other times the whole surface is more or less involved. Sometimes the patches are distinct from one another, sometimes they are confluent (*U. conferta*). It presents, too, certain peculiarities, according to the region affected. "When it occurs on the face, it generally produces an œdematous swelling, especially of the eyelids and lips; the wheals, however, are less distinct than usual, and the rash for the most part assumes the character of an urticaria rubra, and consists of red lines and striæ. The neck is comparatively rarely the seat of this eruption, which is, however, more commonly seen on the chest and back, where, as on the face, it often takes the form of striæ, and sometimes of peculiar wavy lines. On the limbs, it is observed less frequently than on the trunk. When nettle-rash affects the neighborhood of a joint, the skin over the articulation becomes swollen and œdematous. If the hands and feet are attacked by it, the patient often complains merely that they feel as if covered by some woolen substance * * * and no particular change in the appearance of the skin of these parts is to be detected. In some cases, however, the fingers and toes become so swollen that their movements are interfered with." (*On Diseases of the Skin*, by Ferdinand Hebra, M.D., Sydenham Society's translation, vol. i., p. 304).

The rapidity with which nettle-rash comes out, and its evanescence, have led to much speculation as to its cause. There are some who hold that spasm of the muscular fibres of the skin leads to the development of pomphi; while Living is of opinion that they are the result of a spasmodic contraction of the muscular coat of the vessels. The most generally received opinion, however, is, that they are due to an acute inflammatory œdema, having its seat in the papillary layer of the corium; and the reason why the rash is so fleeting is, apparently, that the exudation is thinner and more serious than in the case of

most other inflammatory affections, and that the vessels soon recover their tonicity, and absorb the exudation.

Urticaria is usually an acute affection which disappears in a few hours (*U. ephemera*), or at most within a few days (*U. evanida*), and sometimes it is preceded and accompanied by fever (*U. febrilis*). The presence of febrile disturbance is rather a favorable feature than otherwise, for then there is a reasonable hope that the attack is an isolated one, and will be of short duration, disappearing with the transient cause which has produced it.

It may seem strange to speak of chronic urticaria, seeing that the grand characteristic of the rash is its evanescence; but what is meant is that, although each individual rash is of short duration, the disease is kept up by constant relapses, and thus may continue even for years (*U. perstans*; *Nesselsucht*; *Urticatio*). In this form, errors of diagnosis are apt to arise, for the eruption is, in the majority of cases, nearly or completely absent when the patient presents himself for examination, and then all that we can see upon the skin is the eruption produced by the nails of the patient in scratching (elsewhere designated a puriginoid eruption); but an inquiry into the history of the case will prevent errors, and generally we are told that the eruption comes out when the patient is undressing at night or when he gets warm in bed, or under the influence of nervous excitement. In these cases, too, we may be helped in our diagnosis by writing letters upon the skin with a pencil, which is generally followed almost immediately by a nettle-rash tracing.

There is a variety of nettle-rash to which the term *U. nodosa seu tuberosa* has been given. It is a rare affection; it appears in the shape of pretty hard nodosities about the size of a split marble, and of a reddish color, which involves the skin and subcutaneous cellular tissue, which occur oftenest at night, and disappear in a few hours, frequently to recur. They may involve any part of the body, but the extremities and loins are specially liable to attack. In very rare cases, owing to excessive congestion of the nodosities, rupture of the capillary blood-vessels ensues, so that, after their subsidence, round ecchymoses are left, which gradually disappear. Generally, the nodosities are multiple; but, occasionally, only a single one make its appearance. A case of this kind came under my observation some years ago. A gentleman, about fifty years of age, and otherwise apparently in good health, came to show me a swelling upon the left side of the neck, just below the ear. When I saw it, it was beginning to subside; but it was still three inches in diameter, and raised about an inch and a half above the level of the surface. He told me that he had been subject to this for ten years, the swelling coming on about once in two months, or oftener in damp weather.

From its commencement to the time of its attaining its full size, no more than five minutes ever elapsed, and sometimes its growth was so rapid that its increase in size could actually be seen. As it grew larger, it became hard, and was the seat of a slight tickling sensation, and, when very large, it interfered with mastication. It always disappeared within a few hours, generally within two or three. It never developed upon any other part of the body, and no neighboring irritation—caries of teeth, etc.—or other cause was apparent.

Only one other variety of urticaria is worthy of mention, and is less fleeting than those previously alluded to. In it, the inflammatory exudation occurs around the cutaneous follicles, and is accompanied by the deposit of lymph, leading to the formation of large red papules. These are exceedingly itchy; and, as the patient does not spare himself, the summits of many of the papules are torn off by the nails, and the blood which exudes dries up into little blackish crusts, thus somewhat resembling prurigo. Mingled with the papules are generally found some of the typical nettle-rash wheals. This is the variety of urticaria most frequently met with in young children; it is most commonly seen upon the hips and extremities, and often lasts for months. It corresponds with the *Lichenurticatus* of Willan.

Etiology.—This is one of the few diseases of the skin to which the term neurotic may, not inappropriately, be applied, seeing that the vaso-motor nerves are principally at fault. This vaso-motor disturbance may result from direct irritation of the skin, or may be reflex, arising from the irritation of distant organs and tissues; but, whatever the cause may be, the first consequence is contraction, which is succeeded by dilatation and paralysis of the capillary vessels of the affected parts.

The most familiar illustration of local irritation, resulting in nettle-rash, is to be found in the sting of the common nettle (*Urtica urens* or *dioca*), the sting resulting from the irritation of the fluid in the glands on the under surface of the leaves connected with the prickly hairs, which contains sulpho-cyanogen. It is also often called forth, in those who are predisposed, by scratching the skin, or by the bite or sting of insects, such as the flea, the bug, the mosquito, and the wasp; in which case, in the center of each wheal, the seat of puncture, in the shape of a dark point, is to be seen (*Urticaria traumatica*). Some years ago, I received a telegram asking me to visit immediately a well-known gentleman, in the West of Scotland, under the following circumstances: While picking strawberries in his garden, he put one into his mouth containing a live wasp, which stung him on the right side of the tongue near its root. In about five minutes, his tongue was so much swollen that he could scarcely move it; and within ten minutes the

whole surface was covered with nettle-rash, which, commencing on the head and neck, rapidly spread over the whole body. The affected parts were of a deep red color, were very much swollen, and intensely itchy. The first medicine at hand was citrate of magnesia, of which he had half an ounce; and about an hour afterwards he vomited, putting up with the vomited matter some strawberries and gooseberries of which he had partaken. When he was sick, the itching almost disappeared, but returned again afterwards, though not with the same severity. Three mild antibilious pills were then administered, which acted in about two hours; and within four hours after the commencement of the nettle-rash it had entirely disappeared. The other day I saw, in consultation with Dr. Miller, of Dundee, a single lady who had been troubled with nettle-rash for eighteen months, in whose case the washing of the face with warm water brings it out at once, so much so, that for half an hour thereafter she is unable to go down to breakfast on account of the disfigurement.

Amongst other internal causes which may produce nettle-rash by reflex action may be mentioned the following,—

a. Irritation of the uterine nerves in connection with uterine disorders of various kinds. Hebra mentions the case of a patient who had flexion of the uterus, and in whom nettle-rash was induced fifteen times in succession as the result of the introduction of the uterine sound; and cases have been recorded in which the rash appeared in connection with each pregnancy.

b. In some persons, mental emotion is sufficient to call it forth, such as an excess of joy or grief; and once it has appeared, it is very apt to return from the slightest causes, and even from speaking of it. Some remarkable cases of this kind have been reported by Alibert. He once saw a young woman who could not enter a drawing-room without having the whole skin covered with nettle-rash, so much so that she could not dance or enjoy any other recreation; an ecclesiastic who could not celebrate divine service because the eruption immediately came out, and caused him to scratch himself with the greatest violence; and a poor woman who for sixteen years was the victim of this complaint, and who could not speak without the whole body being covered with the rash.

c. Derangements of the digestive organs are very apt to produce it, or partaking of certain articles of food, or even food to which patients are unaccustomed (Dr. Thompson). The kind of food which produces it varies in different persons, but they soon get to know what they cannot take with impunity. Shell-fish, such as muscles, oysters, crabs, and lobsters; fruits, such as nuts and almonds; vegetables, such as onions and garlic—especially if underdone; meat, such as pork and sausages; and medicines, such as valerian, cubebs, turpentine, and quinine, are, perhaps, most apt to

induce it. In a letter which I received some time ago from a medical friend on the subject of nettle-rash, he mentions the following substances, as being apt to disagree with him; "*In primas*, nuts of all kinds; haws from the hawthorne, especially if very ripe; raisins, figs, prunes, and dried fruit of all kinds, especially if containing sugar. Dates do so very rapidly; sometimes grapes, if I eat the skins. Almonds, wheat, new oats, peas (green and dried); beans of all kinds, unless cooked; most pastries if they contain a good deal of oil, and are what are called heavy or rich; infusion of senna; and common tea, if strong, and without cream and sugar. Neither coffee nor chocolate injures me, but cocoa does; and common scones and rolls, if the loose flour be left on them, especially if they be taken hot, and spread with butter. Opium and Dover's powder sometimes produce a like effect. The attack begins in this wise. One day, at a dinner-party I thoughtlessly began to eat a few nuts, when, almost instantly, even when they were on the tongue, I began to feel a tingling sensation, with heat, and a sense of fulness in the throat, and swelling of the fauces. In a few minutes, itching and tingling began in the palms of my hands and soles of my feet, and within twenty minutes the whole body was covered with rash, as if I had been thrashed all over with nettles. . . . My usual remedy is brandy or whiskey; indeed, I can eat most of the above-mentioned articles if I am drinking whiskey-toddy at the time."

The following case is also worthy of being put upon record. I quote from a letter of a relative of my own: "My experience of nettle-rash is anything but recent, as it is now nearly thirty years since I discovered that I could not eat butcher's meat in any form without causing it, upon which I finally gave up the indulgence of that taste. Since then, I have once or twice had slight attacks of nettle-rash from partaking of very strong soup, but none of those violent symptoms which the solid meat used to occasion. I first made the discovery after a long fever I had in 1830-31. I had previously suffered occasionally from nettle-rash but not violently, nor uniformly, on eating meat. After my fever, however, it was a clear case. It was long before I found that everything in the shape of butcher's meat was inadmissible. Many trials were made with meats, and portions apparently as tender as, or more so, than fowl, as for instance, rabbits, ox's or sheep's tongue, sweet-breads, etc.; but all with the same inflexible result, and that whether I knew what I was eating, or expecting to suffer from it, which satisfied me and the most incredulous around me that imagination had nothing to do with it. The symptoms did not begin for an hour or two. The first was the feeling of a lump in the stomach, perceptible even to the touch; then appeared nettle-rash on my wrists, my arms, my groins, and other tender parts of the skin, at first, in separate white blisters (as if an army of fleas and bugs had attacked me), which shortly agglomerated into large masses of

white blisters. Along with this the inside of my throat and nose became swelled, my voice hoarse, and a feeling as if I had a violent, stuffy cold in the head. If the attack were less severe, I used to go to bed, and was well by morning. If more violent, I used to take magnesia, which acted strongly on my bowels, causing first faintishness, and then severe purging, after which I became well. Various members of my wife's (she is a blood-relation of his own) family have been subject to nettle-rash, but not from the same cause. My mother-in-law could not eat barley-meal, nor my brother-in-law oat-meal, without suffering from it, though not, I believe, so severely as myself. My wife cannot let figs or wall-flowers touch her face without producing a rash. . . . If you will make it worth my while, I will come down at the Whitsuntide holidays and be exhibited. I will also eat the *Ornithorhynchus paradoxus*, if you can catch one unstuffed, and finally determine whether it be bird or beast."

This case illustrates the occasional hereditary nature of the disease—a point which has also been brought out by other writers; amongst others, by Trousseau, in his work on *Clinical Medicine*, Sydenham Society's translation, vol. ii, p. 285.

In many cases, especially in chronic urticaria, no cause can be made out. In the latter, the reason may be that the cause which originally produced the attacks has passed off, and the disease has been kept up owing, so to speak, to the skin having contracted a bad habit; or it may be the result of some peculiar idiosyncrasy, which is a convenient term to hide our ignorance.

Diagnosis.—When the eruption appears in its typical form—in the shape of wheals which are pale in the center and red at the edges—it cannot be mistaken for any other; and when it is due to the sting of an insect, the dark point in the centre of each wheal is characteristic; but when it assumes one of the less usual forms, the lesion being erythematous or papular (*Lichen urticatus*) or tubercular (*U. nodosa*), mistakes may sometimes arise, if due care be not taken. Such errors may, however, be generally avoided by noting the presence of the four following points, which almost invariably characterize the members of the urticaria group: 1, the rapidity with which the eruption makes its appearance; 2, the itching, burning, or stinging sensation to which it gives rise; 3, its short duration, although the disease may be kept up indefinitely, owing to the occurrence of successive crops; 4, its not being followed by desquamation.

Treatment.—The first point in the management of any case of urticaria is to endeavor to find out, and, if possible, to remove, the cause or causes, the nature of which has already been sufficiently considered in a former section.

In acute cases, the eruption generally subsides within two or three days, when no treatment is adopted; but generally a sharp purge is of use, especially when, as in the majority of instances,

the eating of some indigestible food, or digestive derangement, is at the root of the mischief; and, if we have reason to believe that such food is still in the stomach, as indicated by nausea, etc., an emetic of mustard, ipecacuan, or sulphate of zinc, may be administered at the outset. In all such cases, stimulating food and drink should be avoided, and the diet should be of the simplest kind.

In chronic cases, a similar line of treatment should be pursued under similar circumstances, and, where we have reason to suspect that it results from the digestion being disturbed by some particular kind of food, the nature of which varies in different persons, owing to their peculiar idiosyncrasy, we may with advantage follow the advice of Willan, who wrote, "I have desired several persons, affected with chronic urticaria, to omit first one, and then another, article of food or drink, and have thus been frequently able to trace the cause of the symptoms. This appeared to be different in different persons. In some it was malt liquor, in others, spirit, or spirit and water; in some, white wine; in others, vinegar; in some, fruit; in others, sugar; in some, fish; in others, unprepared vegetables." Like most other observers, however, he found that, in some cases, a complete alteration of the diet was not of the least avail. It would be quite out of place to refer to the means to be taken for the removal of the many other causes of this affection, as these must be treated upon general principles, and in the same way as we should do if they were independent of urticaria.

When no cause can be made out, or where the supposed cause has been removed, and the eruption continues to crop up, we must treat it emphatically. We may, for example, try the effect, as Trousseau suggested, of the administration of sulphuric ether in doses of twenty to forty drops in water, or of quinine in full doses, or of arsenic, which is only exceptionally useful. But the medicines from which, perhaps, most is to be expected are atropia and bromide of potassium; the former may be administered subcutaneously at night, or night and morning, the initial dose for an adult being $\frac{1}{100}$ of a grain (e.g., 5 minims of solution of one grain of sulphate of atropia in 500 in water); the latter in doses of ten grains dissolved in water three times a day. In either case the dose should be gradually increased, *either until the disease begins to yield, or until the supervention of the usual physiological effects* renders it unsafe to push the experiment further. Occasionally good results are obtained from the continuous current of electricity for ten minutes night and morning, one sponge (the positive pole) being applied to the top, and the other to the bottom of the spine.

In obstinate cases, a complete change of air and scene and occupation is desirable, and sometimes advantage is obtained from visiting one of the alkaline spas, as Vichy, or from a course for three or four weeks of the baths of Leuk, in Switzerland.

Local treatment is generally resorted to, more with the view of alleviating the distress of the patient than in the hope that it will cut short the disease. The parts, for example, may be sponged with vinegar and water, or with eau-de-Cologne, or with a lotion of carbolic acid. An ointment containing chloroform or a mixture of chloral and camphor may sometimes be of service, and in exceptional cases not only temporary relief, but permanent benefit may result from the use of the tarry preparations, such as a lotion composed of equal parts of tar, soft soap, and rectified spirit.

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

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—
SUBSCRIPTION TWO DOLLARS PER ANNUM.
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All communications and Exchanges must be addressed to the Editors, Drawer 356, Post Office, Montreal.

MONTREAL, AUGUST, 1885.

The Canada Medical Association, at their meeting last year, were invited to hold their next meeting at Winnipeg. The invitation was accepted. Owing, however, partly to the rebellion in the North-West, and partly to other causes, the profession at Winnipeg find it unpracticable to entertain the Association this year. The Medical men of Chatham, Ont., have very promptly and heartily stepped into the gap and extended a cordial invitation to the Association to meet in Chatham, which we understand has been accepted. The outlook is very bright and a number of papers of interest are already promised. The time of meeting is the 2nd and 3rd Sept. next.

All members by applying to Dr. Stewart of Montreal, the Secretary, will be supplied with certificates, enabling them to go and return for one fare and a third.

We hope that the meeting will be largely attended.

At the Annual Meeting of the American Medical Association in 1884, the President, Dr. Austin Flint, in his address, called attention to the desirability of having the Triennial International Medical Congress hold its meeting in 1887 in America.

As the Association was the only organized representative of the profession in the United States he recommended the appointment of a committee to report upon the propriety of extending an invitation to the Congress which was to assemble in a few months in Copenhagen.

The committee to which this section of the President's address was submitted, reported a series of resolutions, providing for the appointment of a committee of eight, to proceed to Copenhagen, present the invitation on behalf of the profession of the United States, and if it was accepted the committee was authorized to continue in existence, to add to its numbers, and make all necessary arrangements for the meeting and organization of the Congress. These arrangements seemed to meet with general approval, and the profession in Canada as well as in the United States were looking forward to a happy and profitable meeting in Washington, D.C., in 1887 of many of the most eminent men from all parts of the scientific world. Unfortunately for the welfare of the Congress, however, a good deal of unfriendly feeling now exists among the profession in the United States, on account of the members added to the original counties, and of the manner in which officers of sections have been appointed. The West claims that the East have taken to themselves too much power and appointed themselves to too many prominent positions. The Western members of the profession feel that the officers of the coming Congress should be more geographically representative of the whole profession. They say the wisdom and scientific attainments of the Medical profession of the United States are not by any manner of means confined to a few men from Washington, Baltimore, Philadelphia, New York and Boston. The code question has also been drawn into the discussion, and some of the newly appointed members of the committee of arrangements hold opinions in regard to the code of ethics that the American Medical Association repudiate.

All this is to be deeply regretted, and in fact seriously imperils the success of the Congress, if not its assembling. The last London Lancet received at time of writing intimates that the International Medical Congress will not come to America unless the whole profession of the United States combine cordially in making a successful meeting.

There are yet two years to elapse before the meeting, and we hope that ere that time these petty Medico-political differences of opinion may disappear, at least from the surface, and that the members of the profession in the Eastern cities will consent to join the committee of the American Medical Association, and by their presence and co-operation insure success to the Congress in 1887.

The spread of small-pox in Montreal and surrounding municipalities is indeed assuming alarming proportions. There were 43 deaths from this loathsome disease during the week ending August 15th. Of these 42 were interred in the Roman Catholic Cemetery and *only one* in the Protestant Cemetery.—“*Thereby hangs a tale.*”

REMOVAL OF THE KIDNEY.

On the 14th ult. Dr. Hingston removed the right kidney from a young lady who had been suffering severely for several years from hydronephrosis of the displaced organ. The lateral incision was adopted. The patient made an excellent recovery without any untoward symptom. This is so far as we can learn the first time this operation has been performed in Canada.

A popular physician was much pleased with a certain aerated water, and by his assiduous recommendations procured for it a celebrity it justly deserved. The doctor acted solely in the interests of humanity generally, and expected no return. To his surprise there came one morning an effusive letter from the Company, stating that his recommendations had done them so much good that they “ventured to send him a hundred ———” Here the page came to an end. “This will never do,” said the doctor; “it is very kind, but I could not think of accepting anything.” Here he turned the page, and found the sentence ran—“of our circulars for distribution.”

PROPER TIME FOR TAKING MEDICINE.

The proper time for taking medicines, whether before or after meals, is a matter of considerable importance, and requires careful consideration. In many cases the chemical nature of the medication will indicate the proper time.

According to the *Bull. gen. de. Ther.* the local irritants, e. g. salts of iron, copper and zinc, and arsenic in large doses, should be taken directly after meals into a full stomach. Small doses of medicine, which are to act upon the mucous membrane, should be taken on an empty stomach. Silver oxide and silver nitrate should be taken during a period of rest, in order that they may locally act upon the mucous membrane of the stomach, Iodine and iodides also should be taken on an empty stomach. The presence of starch and acids, which decompose and modify the iodine preparations diminish their effectiveness. The acids which are prescribed for overcoming the acidity and preventing fermentation in the stomach must be taken before meals, so as to increase the secretion from the glands of the stomach. The alkalies are given during meals when they are to act upon the acids of the stomach, and before meals when they are to be absorbed by the blood, so as not to interfere with the digestion by neutralizing the acids in the stomach.

Some of the metallic salts, especially mercuric chloride, also alcohol, tannin and other medicines, modify or destroy the digestive powers of the pepsin, and must therefore be given on an empty stomach. Small quantities of alcohol, as contained in the ordinary medicinal wines, have no injurious effect on pepsin. Cod liver oil, phosphates and similar medicines may be taken with meals.

"The Eastern Medical Journal," of Worcester, Mass., has now commenced to appear fortnightly instead of monthly as heretofore. The intention of its Editors is to issue it weekly in the near future.

Daniel's Medical Journal. This is the latest production in Medical Literature, and hails from Austin, Texas. The magazine is attractive in appearance, of a deep red color and illuminated with the Star of Texas on its front cover. May it

long shed its rays of light into the minds of the readers.

In the current number of the *Fortnightly Review* Dr. Morell Mackenzie contributes an article on Medical Specialism, in which he asserts that the general physician is fast dying out, and that before long the profession will consist of only two classes, specialists and general practitioners. The day of the "pure" physician he thinks is over, and he ought gracefully to retire from the struggle, a beaten man. This may be Dr. Mackenzie's wish, but in my opinion it is far from being realised. For several years past I have watched the modern specialist closely, and, in my opinion, he is losing rather than gaining ground. The air of superiority which he always assumes when called into consultation, has disgusted the general practitioner, and his big fees tend to keep the general public away from him. The great aim of the specialist when called by a general practitioner to see a case appears to be to get the patient into his own hands as speedily as possible, and when he succeeds he generally makes good use of him if he can afford to pay good fees. My advice to the general practitioner is to keep away from the modern specialist if he wishes to keep his patient. Except it be an eye case, or the patient suffering from a disease peculiar to women, it will, as a rule, be more satisfactory to seek as a consultant the aid of a good all-round physician or surgeon. This fact is becoming recognized by general practitioners, and specialism, as I said before, is losing rather than gaining ground.

PAMPHLETS RECEIVED.

Rules for preventing the development and spread of Asiatic Cholera. Specially compiled for public distribution, from latest authorities, by E. Playter, M.D.

The prevention of opium addiction, with special reference to the value of galvanism for relief of neuralgic pain, by J. B. Mattison, M.D., Brooklyn, N.Y.

Voice in Singers, by Carl H. Von. Klein, A.M., M.D., of Dayton, Ohio. Price 25 cents.

A Memoir of Charles Hilton Fagge, M.D., late physician to Guy's Hospital, &c., P. Blackiston, Son & Co., Philadelphia.

Report of Proceedings of the Tennessee Board of Health, Quarterly meeting, July 7th, 1885.