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## Original Communications.

### OBSERVATIONS ON LITHOTRITY AND LITHOTOMY.

By WILLIAM H. HINGSTON, M.D., L.R.C.S.E., Surgeon to St. Patrick's Department, Hôtel Dieu.

(Read before the Canadian Medical Association, at its meeting in Montreal, September, 1872.)

Within the past few years, vesical calculi have, I believe, become somewhat frequent in our midst; and operative procedures for their removal are not of unusual occurrence. The frequency with which art is now sought should tend rather to increase than to diminish interest in the subject; to aid us in ascertaining the causes of its greater frequency, now that hygienic laws are more generally understood; and to direct attention to the best means of ridding the subjects of vesical calculi of a troublesome and dangerous malady. The first part of the subject would alone take up more time than is at your disposal: suffice it to say, urinary calculi originate in the "precipitation of urinary constituents, in consequence of a loss of solvent capacity in the waters of the urine; either (1) by an excess of any substance for the water to dissolve; or (2) by a deficiency of water for solution of the substance; or (3) by "the presence or absence of some third substance;" and, lastly, the deposit may aggregate from a focus of its own substance or may "gather around a foreign body as a distinct nucleus." Do these conditions obtain here more frequently than in other parts of the Dominion? I know not; but certain it is, cases of vesical calculi are far more common in this part of the Dominion than in either Nova Scotia or New Brunswick, on the one side, (where the disease is almost unknown;) or than, so far as I can learn, in the Western portion of the country; and are more common in this city than in other cities of even this portion of the Dominion; and in certain portions of this city more than in others. While the Western portion of Montreal enjoys comparative immunity from the disease, St. Mary's, St. James's and the eastern portions of St. Lawrence wards and their out-juttings St. Jean Baptiste Village and Petite Côte, have furnished by far the greater number of cases of the disease to the hospitals. Nor is the disease met with in equal ratio amongst the British and French. I have no published statistics to aid me; but my own experience, and the *parole* evidence of others, would lead me to believe that while the French Canadians are more subject to certain maladies, and the British Canadians to others, among the former have been met by far the greater number of cases of Urinary calculi. Dr. Robert Nelson, during

his residence in Montreal, operated some sixty-five times—the greater number being on French Canadians. Dr. Beaubien has had fifteen cases—all amongst French Canadians. Dr. Campbell has operated twenty times, and 15 per cent were French Canadians. Dr. Munro has operated between forty-five and fifty times, and he tells me his memory cannot recall, among that number, one who was not a French Canadian. Dr. Fenwick, who has lithotomized during the past few years in sixteen cases, and with a success that is exceedingly satisfactory, had seven among the British, and nine among the French, and all of them, save one, being natives of Canada. Of those lithotritized and lithotomized by myself, twenty-five per cent, in round numbers, were among the British, and seventy-five per cent, among the French. Thus Dr. Campbell's figures, showing a much larger percentage of British cases, may be fairly balanced by those furnished by Dr. Fenwick and myself combined; while those of Drs. Nelson, Beaubien and Munro, are without a corresponding counterpoise of cases among the British. I had not the leisure afforded me of continuing this enquiry amongst those who have performed their one or two operations each. Whatever may be the influences which combine to render Urinary calculi of greater frequency amongst the residents of this Province, than of the other,—and in this Province among our fellow citizens of French origin, I cannot even conjecture. Differences in the soil, water &c., and in other climatal conditions might be invoked in explanation of the former; but the latter must be left to speculation. So much, gentlemen, for the formation of stone, and its frequency; and now for its removal. And here I confess to some diffidence in hazarding an opinion where it might seem fitter for me to ask it. Yet an opinion must be formed, and operations must be resorted to, and it is oftentimes difficult for a surgeon, not wedded to either, to say which operation—Lithotomy or Lithotrity—is best suited to the case. I had performed Lithotomy five times, and each time with success, ere I performed my first operation of Lithotrity; but since then I have performed Lithotomy but three times, choosing, rather, the Lithotrite in every case where its employment was not clearly contra-indicated. The experience I have thus gained, limited, it is true, is this: that in the adult, hardness, and hardness alone, should offer an obstacle to the use of the Lithotrite; and that neither the size nor the number of the stones, nor even the condition of the urinary organs, should be permitted to be obstacles to the performance of Lithotrity, should that operation be preferred to its

more brilliant, more rapid, and withal more dangerous competitor—Lithotomy.

It is to be regretted that statistics do not represent the true state of the question, so far as a general comparison between the two operations is concerned; and for these reasons. For Lithotrity to be successful it is supposed to be necessary that the stone be of moderate size, single, and not too hard; and that the urinary organs be in a healthy state. I say *supposed* to be necessary, for in some of the cases I met with, the stone was large; in some cases multiple; and in more than one case the organs were in a far from healthy condition. If, however, we admit statistics as they are furnished to us by those who practise both operations, Lithotrity is one of the most satisfactory. Civiale, whom I have seen operate many times, and whose dexterity and delicacy in handling his instrument I have much admired, says that out of 591 operations there were only 14 deaths, or 1 in 42.2. This was in his own practice; while Lithotomy, until recently, gave 1 in 7.9. The statistics furnished by great Britain are meagre. Twenty-five years ago, cases were frequently sent thence to the great Lithotritist at Paris; but Brodie, Ferguson, Keith and Thompson soon came to retain in Great Britain cases that would otherwise have been sent to France. Brodie lost 9 out of 115, and of these only 5 were due to the operation. Ferguson lost 12 out of 109 cases, and Keith 7 out of 129. Sir Henry Thompson's earlier returns were 84 cases and 4 fatal. His later returns 184 cases, and recoveries 93 per cent. And, omitting five deaths from other causes, the mortality amounted to only four per cent. "I may now say, says Sir H. Thompson, "that the deaths which occurred from all causes during or after the conclusion of treatment, among 204 cases of patients, averaging 61 years of age, were 13 in number, constituting a rate of recovery of 93½ per cent. Mr. Chrich-ton in 122 cases had only 8 deaths, or less than one in fifteen. "Considering," says a writer, "the relative mortality of the two operations, so highly in favour of Lithotrity, the small proportion of cases submitted to this operation would scarcely seem judicious." But a more recent writer, Sir H. Thompson himself, says: "although the proportion crushed now, I believe, by most surgeons, is mostly larger than that submitted to the knife, I have ventured to regard Lithotrity as the rule, applying it to five out of every six adult cases; and to employ Lithotomy only as the exception." Gentlemen, I must be pardoned if I append my puny figures to those just read to you. I require three to make a score of cases of Lithotomy and Lithotrity combined—eight of the former and nine

of the latter. But as in one of the cases of Lithotomy I had previously lithotrotized the patient; and as in one of the cases of Lithotrity, the patient had been previously lithohomized by me; although this does not diminish the number of cases it does the number of patients, who are thereby reduced by two.\* Of the eight cases of Lithotomy I have little to say. They presented no special features of interest—five of them were in children. The lateral operation was performed in all but one case—when Allarton's method was followed. They all terminated favourably. One, however, a boy, operated upon four years ago, from whom I removed a stone weighing three drachms 49 grains, still suffers, and probably ever will suffer, from incontinence of urine. The number of calculi in each case was one, with one exception. From one patient lithotomized, I removed twenty-five calculi; yet within six months I lithotritized him, new calculi having formed in the interval. Of the nine cases of Lithotrity, six recovered perfectly, and without a return of the disease; one was operated upon the second and last time more than a year ago; and of the two incompleated cases, one, undertaken at a most critical period, was abandoned; and one was partially crushed by the Lithotrite, but a sacculated bladder rendered recourse to Lithotomy necessary. In no case where the Lithotrite was used was the bladder injured, and (the same has been observed by others) even when the irritability was considerable before the operation, that irritability was lessened before any *debris* had passed away. Of the average number of sittings in each case I have no record. The greatest number, however, in any case, so far as my memory serves, was sixteen, and the fewest number was three times.

Surgical writers are accustomed to lay down certain rules for the guidance of Lithotritists which appear to me to be somewhat faulty, and to some of which I shall allude:—

1st. As to the use of chloroform. Chloroform should generally be administered. It was given in all but one case, the nervous, restless condition of the patient, and the frequently irritable condition of the bladder, rendering it necessary.

2nd. It is recommended to empty the bladder and then to inject with tepid water until that viscu contain five to six ounces of fluid. That advice I regard as most pernicious, as the injection of warm water is really more painful, and may be more dangerous, by inducing spasm of the bladder, than the intro-

\* Nov. 13. An operation (Lithotomy) on a congenital case of stone in a child five years of age, performed to-day, increases that number.

duction of the Lithotrite itself; and every surgeon knows the difficulty of retaining fluid thus introduced.

3rd. It is recommended not to lithotritize unless the patient can retain his urine at least four hours. Although it is highly desirable, as an evidence of absence of irritability of the bladder, that the patient should be able to retain his urine a considerable period, in one of my most satisfactory cases the urine could not be retained as many minutes, but came trickling away into a gutta-percha bag suspended to receive it.

4th. As to the difficulty of sometimes finding the stone, all Lithotomists are agreed. The same difficulty occasionally presents itself in attempting to seize it. The instrument used, in my few cases, was the French one, introduced on the patient's right side, (patient on his back,) the instrument held perpendicularly when passing through the membranous portion of the urethra, the weight of the instrument alone propelling it. The blades were not opened till the centre of the bladder was reached, and, as recommended by Civiale, no depression was made, and the stone was not made to fall into the Lithotrite, as taught by Brodie, Heurteloup and Crampton, but seized where it was found, and generally without the blades of the instrument touching the coats of the bladder, much less injuring them.

In only one case did the patient complain of suffering after the effects of the chloroform had passed away. One of my patients, a shoemaker, was so little inconvenienced by the operation that he rarely lost any of his working hours but went cheerfully to sleep a few moments after twelve, singing the "Marseillaise," awaking suddenly to consciousness, and in time to return to the city to resume his work at one o'clock. This patient was lithotritized fifteen times altogether—eleven times on first, and four times on second occasion, when calculi had reformed after an interval of several months; yet he more than once declared in the presence of the students "je ne sentais rien." He had several large sized friable calculi—the larger *debris* of which alone nearly filled a two-ounce cerate box.

Seeing the facility with which the calculi were broken up in the few cases submitted to the action of the Lithotrite, and the inconsiderable discomfort attending and following the operation, I am of opinion that, in the adult :

- 1st. When the stone is small, we should crush.
- 2nd. When however large, if friable, crush.
- 3rd. When single, crush.
- 4th. When multiple, crush.

5th. When hard and large, whether single or multiple—we should cut.

6th. But that in all cases of children, whatever may be the size, or number, or consistence of the calculi, we should lithotomize.

Corner Union Avenue and St. Catherine Street.  
Montreal, September, 1872.

N.B.—While this short imperfect sketch, written chiefly for the purpose of adding a little to the interest of the Montreal meeting of the Canadian Medical Association, is passing through the press, I am perusing for the first time, Sir Henry Thompson's admirable work, "Practical Lithotomy and Lithotomy." Although many of Sir Henry's observations are embodied in Holmes, Gant, Erichson, and other works of systematic surgery, the comprehensive and exhaustive nature of his monograph can only be appreciated on perusal. While much of what I have written is fully and ably treated by Sir Henry, I am not a little pleased that many of the impressions conveyed to my mind by the observation of a few cases on this side of the Atlantic, are the echoes of more powerful impressions on the earnest mind of the most accomplished living Lithotritist, by the treatment of cases more than twelve times the number.

*A Case of Abdominal Tumor.* By E. H. TRENHOLME, M.A., M.D., Professor of Midwifery and Diseases of Women and Children, University of Bishop's College, Fellow of the Obstetric Society of London, (England), Attending Physician to the Montreal Dispensary, &c., &c., &c.

The following presents some features of interest, which has induced me to bring it before the notice of this Society.

The subject of this sketch, Mrs. G., a native of England, æt. 70 years, was a well-developed, fair-sized and healthy-looking woman, with a slight stoop in her gait. She consulted me upon several occasions during the early part of 1870, for pains in the stomach and "dyspepsia." Notwithstanding these occasional attacks, she was able to attend more or less regularly to her duties up to the first part of April, when she was obliged to confine herself to the house on account of the increased violence of the pains already mentioned. The patient, at this time, could not eat her food, sleep, or rest, and by the middle of April, she could bear it no longer, and I was sent for to see her. I found the patient suffering as just described, and much shattered in strength,

After questioning her as to the state of her bowels, urine and stomach, which I found to be normal, I then proceeded to make a thorough examination of the abdomen, at the seat of the pain, which pain, according to her story, was nearly at the pit of the stomach, a little to the left side. Upon palpitation, I found a tumor on the left side, in the left lumbar region, close up to and under the cartilages of the ribs, and pressing against the diaphragm. The tumor is not movable, and is about the size of the closed fist, and of a firm and hard structure. This growth was evidently the cause of those pains and obscure gastric symptoms already mentioned. Strange to say that, although the growth was situated in such a position that it must have been compressed by the clothing fastened to the waist, yet the patient had never recognised its presence till I had pointed it out to her. Upon questioning the patient as to her history, I found that about twenty years ago she had received a severe injury or bruise on the left side by a fall, from the effects of which she soon recovered. This was the only thing that I could ascertain as having the least connection with the tumor.

The treatment adopted at this stage was simply hot stupes to the abdomen, and opiates. With regard to a diagnosis, I did not feel there was enough ascertained, or even ascertainable, to warrant it, and so resolved to wait the issue of events. I may say that there were no indications, nor history, of cancer. The position of the tumor showed that it could not possibly be ovarian. It was not connected with the stomach or spleen, as the latter organ could be detected of normal size, and the former was in good order. It seemed too much to one side to be connected with the omentum, and too high to be attached to the kidney; and, besides this, the urine was apparently normal in color and quantity, and the patient had never complained of the slightest nephritic symptoms. By the 25th of April the tumor had so increased in size that it was as large as a head and occasioned difficult respiration, in addition to severe pains in the part, and general constitutional disturbance. On this day, Drs. Hingston and F. W. Campbell saw the patient with me, and, after a thorough examination and discussion of the case, we came to the conclusion it must be a partly fluid and partly solid cyst, but not connected with the ovary.

On the 26th, Dr. Burnham, of Lowell, Mass., the well-known ovariologist, saw the case with me, and, after he had thoroughly examined the patient, he could not determine the nature of the growth, but thought it was probably a blood tumor; he ventured this opinion from the fact of the tumor being partly

solid and partly fluid, and its rapid growth and position in the cavity. The solid part of the growth, by deep pressure, could be detected below and to the inner side of the enlargement. This fact had been recognized, as already stated, by myself and also by Drs. Hingston and F. W. Campbell. Dr. Burnham agreed with us, that the feeble state of health, the age of the patient, and the uncertainty of the diagnosis, precluded the idea of abdominal section. I may here state that Dr. Burnham had a case very similar to the present one, where he undertook to operate for ovariectomy, and, upon making his incision, found that the tumor was an hermatocèle, the walls of which he could not ascertain. He incised the tumor, evacuated its contents, closed the abdominal cavity, and the patient made a good recovery.

To return to this case, however, I may say that by the 28th of April the tumor had enormously increased. The patient had had severe rigors, her breathing was greatly interfered with, and her sufferings were so great and urgent as to demand relief. In the afternoon, Dr. F. W. Campbell saw the case with me again, when we determined to draw off the contents of the cyst, which (we judged) would be probably purulent on account of the preceding rigors.

A medium-sized trochar was introduced about half way between the umbilicus and cartilages of the ribs, about three inches to the left of the median line, and a little below the most prominent part of the tumor. The withdrawal of the trochar was followed by the discharge of about thirty ounces of a clear, pale, straw-colored fluid; after which, about the same quantity of pus came away, and the canula was removed. The solid part of the tumor was now quite perceptible, and appeared to be about the size of a large fist. This operation was followed by such a severe shock that I feared for my patient's life. In a short time, however, she rallied, and passed a tolerably comfortable night, and the next morning declared she had not felt so well for months past. The patient now enjoyed a few days of respite, when the tumor once more began to enlarge, and soon attained its former dimensions. On the 15th of May the enlargement so seriously interfered with respiration and ingestion, that a repetition of the operation of tapping was urgently called for. On this day, Drs. Hingston and F. W. Campbell saw the case with me, and as there was no difference of opinion as to the necessity of the operation, it was performed in the same manner as before, and with the discharge of the same quantity and characters of fluid, except that a few flakes of albumen and

clots of blood came away with the last few ounces of pus.

The patient did not suffer from such severe shock as followed the first tapping, and, with the aid of an opiate, passed a comfortable night. Her health and spirits improved much, and she was able to take a fair quantity of food, a thing she had been unable to do for months past.

The most pleasing feature of this case now, however, was that the cyst did not refill to any inconvenient extent; and that the solid part underwent a gradual process of absorption, and during the following ten months entirely disappeared. The general health so improved that, in the course of three weeks, she was able to move round the house once more. Everything went on most satisfactorily for a few months, when, unfortunately, the patient became the subject of religious melancholy; and, although her general strength warranted out-door exercise, nothing could induce her to leave the house; she not only would not take a walk, but refused to enjoy the fresh air in a carriage. I need hardly say that her general health soon began to fail; she refused her food; grew more and more melancholy and suspicious, rapidly lost flesh, and became a living skeleton. During the months of March and April she complained of her food sticking in her throat, and could swallow fluids only. During the last thirty-five days of her life, she took no nourishment whatever, and the last five days not even a drop of water passed her lips. By the end of April, 1872, emaciation had reached its extreme limit, and death supervened on the 6th day of May. About two weeks before her death she passed some purulent matter, but, as I could not ascertain its origin, I supposed it to be leucorrhœal.

The postmortem examination was made eighteen hours after death; my friend, Dr. Kennedy, kindly assisting me. Inspection of the body shewed emaciation had reached beyond anything we had ever seen. The anterior wall of the abdomen seemed to rest upon the vertebra. There was no indication of the presence of the tumor to either eye or hand. Rigor mortis not well marked. Upon making abdominal section, the contents of the cavity were found to occupy little space. The *liver* was small, but otherwise in a normal state. The gall bladder was greatly distended with gall; and contained a quantity of cholesterine crystals.

The *intestines* were nearly empty; the small ones, containing some dark fecal matter, occupied the pelvic cavity. Pedunculated nodules, about the size of a common pea, projected here and there from the surface of the bowels, but these were found to be

filled with dark, condensed fecal matter, and communicated with the cavity of the bowel. The transverse and iliac portion of the colon rested over the upper strait of the pelvis. The calibre of the intestines, as well as that of the œsophagus, was greatly reduced, especially the latter, which accounted for the difficulty she experienced in swallowing during the latter part of her life.

The *stomach* was so contracted that its utmost capacity could not be more than one and a half ounces; the walls of this organ, however, appeared to be as thick as usual.

The *omentum* was found to be intensely congested.

The *uterus* and *ovaries* were much smaller than usual, but otherwise perfectly normal. *Spleen* normal.

*Pancreas* was found to be of firm consistence, yellowish color, and apparently undergoing fatty degeneration.

*Thoracic viscera* were normal.

*Brain*—Meninges injected; slight deposits of lymph on pia mater and in the sulci; also serous effusion under arachnoid; general softening of the substance of the brain.

*Kidneys*—Right kidney normal. *Left Kidney* was found to be contracted, with the capsule strongly adherent to its surface; corticle much atrophied; tubules normal. The pelvis of the kidney was much enlarged, and contained some purulent matter. The *ureter* of the kidney, at the point of its union with the pelvis, was found much dilated, and to have formed with the pelvic cavity, the sack of the original cyst. The marks of the trochar are quite visible, shewing the point where the sack was penetrated at each tapping. There is one remarkable feature connected with this specimen, which I now exhibit, and that is the peculiar valve-like way in which the ureter communicates with the cavity of the sack. As you see, the pressure of the fluid in the sack effectually closes the outlet. This fact explains how it was that attention was not drawn to the kidneys at all during life, and also why a purulent discharge (very slight) was present near the close of her life. During the period the organ performed its function, the urine could not escape on account of the valve that shut it off from the ureter; and it was only after its secreting power was destroyed, and the distended sack evacuated, that any of the pelvic contents could escape by the ureter.

With regard to this tumor of the kidneys, I may remark that they are very rarely met with. Dr. Bright (p. 212) reports a case of abdominal tumor being due to pus distending the pelvic cavity, the

patient having been the subject of previous inflammation of the organ. In this case, however, the cyst extended almost to the iliac region, and was not nearly so prominent or high as in this case. The same author relates nine other cases, in all of which there are symptoms pointing to kidney disease, recognized during life. In speaking of this subject last summer, to Dr. Keith, he told me that he had seen but one such case in his practice.

Montreal, Oct., 1872.

*Case of Imperforate Hymen. Operation and Recovery.* By JOHN BELL, A.M., M.D.

(Read before the Medico-Chirurgical Society of Montreal, Nov. 16, 1872.)

B. W. first came under my care in August, 1871, suffering from ammenorrhœa. She was then 18 years old; had always lived in the country; was of medium height; tolerably well built; breasts not large; eye, hair, and complexion dark—the latter pale and somewhat sallow; in manner diffident, reticent, and apparently somewhat stupid. Has suffered since childhood from headaches, backaches and vomiting. Has never menstruated, and has had no recurring symptoms, which could be said to be an abnormal manifestation of this phenomena. Ferruginous tonics were prescribed, and directions as to exercise and diet were given.

A few days after this she got married to a farmer, and went back to the country to live. In a few weeks after this event all the symptoms became aggravated, the lassitude, headaches, and pain in loins and thighs, and she became still more depressed, on the discovery of a tumor, protruding between the labia, which some old woman asserted to be a displacement of the womb, and was a warning to avoid all doctor's medicines, as this had been brought about by the strength of the remedies which she had been taking.

She returned to me again on the 3rd of October last, having remained in the country during the intervening fourteen months, and suffered constantly from the above symptoms. On examination, the tumor between the labia presented itself as a rounded conical protuberance, of a little more than an inch in length, occupying the position of the hymen, and very much resembling a glans penis. It had along both sides slight markings, which met above or below, including an elliptical space, and appeared as if they represented a third pair of lips or *labia minorâ*. In the centre of the space, and at the apex of the tumor, was a small depression, like the meatus urinarius of the male. On pressure, the tumor easily

collapsed, and the finger could be introduced so as to completely invest it, to its fullest extent, into what seemed to be a well-bounded cavity of some kind. The urethra was so much dilated as to admit of the introduction of the little finger. The finger on the urethra could be very easily felt by the finger on the rectum, so that there appeared to be no more tissue than that of the urethra and bowel, and yet, as the vagina was there, it will be seen how thin the walls at this part must have been. Through the walls of the abdomen, a hard rounded tumor, of about four inches in diameter, could be felt above the *os pubis*, and inclined to the right of the median line. The lower part of this tumor could be felt through the rectum, low down on the pelvis, of a hard, rounded, and somewhat ingise character, giving the impression to the finger that the walls of the uterus were not only strongly distended with fluid, but that they were also firm and thick themselves.

On the 4th of October, Dr. McCallum saw this case with me, and we proceeded at once to introduce a small canula and trocar through the septum, when a quantity of tawny fluid, like treacle, of a dark brownish color, quite devoid of odor, appeared. A crucial incision, across the whole diameter of the hymen, was then made, when about a quart of the above fluid came away without any pain, and the tumor in the belly subsided on the introduction of the finger; the vagina felt soft and pliable, for about two inches up, where it became thick and hard, as if the muscular layers had become hypertrophied, in endeavoring to expel the accumulated fluid. A plug of oiled lint was introduced through the wound, and the patient instructed to remain quiet in bed, to allow more of the fluid to drain away. She felt greatly relieved, and appeared bright and comfortable next day. On the second day after the operation (October 6th,) she was feverish, but with no local pain. She was troubled with a severe cough at this time, and got but little sleep on account of it. A liquor ammonia acetates and ipecac. mixture, with a weak solution of Condry's fluid for injection per *vaginam*, completely relieved these symptoms in a couple of days, and she would no longer remain in bed. The aperture was occasionally stretched by the introduction of two or three fingers, until the edges of the wound healed, which took place in about ten days. She then left for home, and has been quite well ever since.

It is singular that the accumulated menstrual fluid, which has, in many of these cases, been pent up for many months, and even years, in such close proximity to the rectum, should not have the slight-

est odor. In this case, there was no trouble whatever from the chief source of danger in this operation, viz., the entrance of part of the accumulated fluid into the peritoneal cavity—forced either through the free extremities of the Fallopian tubes, or through ulcerations in their thin and distended walls, by the great expulsive force of the uterus, which, contracting down, closes the apertures of communication with the Fallopian tubes.

This deformity, in some cases, seems to have an hereditary tendency.

1, Beaver Hall Terrace,  
Nov. 16, 1872,

#### THE THERAPEUTIC VALUE OF ALCOHOL.

BY DR. W. E. BESSEY.—(Continued.)

Dr. Ainstie calls alcohol an anæsthetic such as chloroform or ether, adding that it is an acrid narcotic poison. Now, what is the effect of anæsthetics when freely used? Dr. F. H. Hamilton, inspector-general of the U. S. army, during the late war, thus wrote (1865): "Anæsthetics produce certain effects upon the system, which tend to prevent union by the first intention, and, consequently, they must be regarded as indirectly promoting suppuration, pyæmia, secondary hemorrhage, erysipelas, and hospital gangrene. We are compelled to say that our success in capital operations, especially in primary thigh amputations, has not been as good since we began to use these agents as it was before." Therefore, if alcohol is what Dr. Ainstie claims for it, then it must, from its extensive use, promote a vast amount of diseased action in the system.

Dr. Markham, in the *British Medical Journal* (1861), thus accounts for the erroneous opinions of the day. "Medical men had been stimulated to the modern extensive use of alcoholic drinks in disease, and in health, by chemical theories. That these chemical theories upon which they founded their practice have at length been found untenable, and, especially, that we have now at length come upon another chemical theory, which indicates that it is, to all intents, a foreign agent which the body gets rid of as soon as it can; that it is, in fact, something like chloroform, ether, &c., (Chambers, Ainstie,) agents fraught with blessings to humanity, but yet admitted to rather tend to poison than to feed the body of man. Alcohol is not a supporter of combustion. It does not prevent the wear and tear of the tissue. Part and probably the whole of it escapes from the body, and none of it, so far as we know, is assimilated or

serves for the purpose of nutrition. It is, therefore, not a food in the eyes of science."

Dr. Budd, F.R.S., in his lecture on functional disorders of the stomach, thus speaks of gastric irritation, one of the morbid conditions present in gastric fever (*Medical Times*): "The most effectual remedies are, (1) sedatives, and other means which lessen the irritation from which the gastric disorder springs; (2) alkalies and astringents. The diet should consist chiefly of milk and farinaceous food, and little should be eaten at a time. *Alcoholic drinks* and all stimulating articles of food seldom fail to aggravate the disorder, and should be strictly forbidden."

The recommendation of alcoholic beverages as remedies is the common practice in Montréal; and the *stimulating plan* or the administration of alcoholics, as wine, brandy, whiskey, gin or ales, is the practice in vogue in the Montréal General Hospital, in which institution according to the last (corrected) annual report the mortality rate, in typhoid fever, out of a total of 49 cases was 8—or 16.3 per cent. less than that of the European Hospitals generally, where the average mortality rate, in this disease, is about one in 5.4 or 18.53.—(Murchison,) to one in 6—or 20 per cent (Aitken, Harley,) but greater than under the non-stimulating plan, as pursued in Glasgow hospitals, where it has fallen from 17 to 10 per cent.—(Gairdner.)

Some allowance, however, must always be made for variable hygienic conditions, and in this instance for the lack of perfect sanitary arrangements in the present Hospital buildings, and also for the uncertain ages of the 49 patients referred to in the report, the mortality rate among old persons being always much greater than among the young, amounting in some cases to 60 per cent.—(Murchison.) The general mortality rate of the Hospital for the year was 9.38, which, owing to the epidemic of confluent small pox which prevailed in the city last winter, was unusually large.

Hartshorne gives 1 in 20, as the probable death rate in this disease. My own opinion is that under favorable hygienic conditions the mortality rate in this disease should not be more than 5 per cent.

But then the stimulating plan is frequently adopted in other diseases in private practice. I have had two illustrations of this in children this summer. In one case a child had been weaned for several months on account of the mother's inability to continue nursing. At first, as was natural, the child declined in appetite and refused its food. A medical gentleman was consulted, and recommended the mother to give the child brandy with



milk, which the mother did. The child did not flourish, but remained delicate, emaciated, and suffered greatly from irritability of the stomach and bowels. On being consulted I advised a discontinuance of the brandy, and to give the child plenty of hot milk, with barley broth and simple broken cracker. In a few days the irritation had passed away, and the child was beginning to improve. Another case occurs to my mind, while writing. I saw a child a few weeks since, aged sixteen months, that had been suffering from summer diarrhoea; another medical gentleman had been consulted who recommended *plenty of port wine or brandy with Martin's Cardinal Food*. The mother did as directed; the child continued bad, in fact grew worse. She consulted another, who recommended ale with milk diet, and gave *mist creta co.* This treatment also failed, and the parents, expecting to loose the child, who was now much emaciated, with violent dysenteric symptoms present, asked me to see it when passing. I recommended *total abstinence from alcoholics*, and to give it plenty of hot milk only as diet, with a three grain powder of *hyd. c. creta* every twelve hours for first day or two. This child recovered in five days from the dysenteric symptoms, and is since doing well; to my mind in these cases the *alcohol* prescribed proved a cause of irritation, and interfered to a most serious extent with alimentation.

Thus, as it appears to me, alcoholics are not only unnecessary as remedies in the treatment of general diseases, but the advantages claimed from their use are at best questionable, and in the great majority of cases their administration can be proven to be positively pernicious. Even many of the former advocates of alcoholic medication are of themselves abandoning their use in all cases except those, of extreme prostration and in nursing mothers—(upon which latter subject I may have some thing to say in a future article.) Its therapeutic influence has been amply proven, on the most indubitable authority, to be the opposite of valuable in affections of the nervous system (except, according to Ainstie in neuralgic pains, where chloric ether is preferable), alimentary canal, lungs, blood, liver and kidneys, and in fact a true bill has been found against it as an agent calculated not only to aggravate most diseases but also to create in many cases serious complications, and largely increase the rate of mortality.\*

\* The effect of alcohol when taken into the system has been proven by the experiments and microscopic observations of Schultz, Virchow, Boecker, Ed. Smith, F.R.S., T. K.

The London *Lancet*, looking upon the subject from both a scientific and humanitarian point of view, says: "There is no doubt as to the erroneous influence which as a profession we have had in creating the public opinion that exists as to the use of beer, wine and spirits." "A very great amount of good would be done if medical practitioners never prescribed alcoholic stimulants without indicating a certain quantity, and erring on the side of moderation."

"Not only should there be precision of language in prescribing stimulants, but we should seriously ask ourselves, in every case, whether it is necessary to give the sanction of our special prescription to them. Unquestionably there are many diseases in which they need form no part of our treatment.

"Then there is need of courage in medical men to be *candid* and *firm* in *positively discouraging* the use of alcohol, or of the popular forms of it in many cases. It is lamentable to see young men losing their appetites, and getting short-winded, and prematurely corpulent under the notion that bitter beer is a real tonic, or to behold a lady relieve her various pains with sips of hot gin or brandy.

Chambers, Lallemand, and others, to vitiate the secretions, to impoverish the blood by altering the character of the red corpuscles arresting their development, and increasing the ratio of leucocytes, or white corpuscles, (bioplasts of Beale,) from the normal proportion of 1—50 of red corpuscles to 1—4—which may be regarded as defunct bodies no longer capable of conveying oxygen to the system; less oxygen is absorbed, less carbon exhaled. The fatty matters are increased, the vital plasma itself looses a portion of its vitality, and becomes capable only of developing a low order of tissue, and may even become so altered in character as to become an irritant to the circulating and secreting organs, and utterly unfit to promote the healing of wounds and injured parts.

Or, if we take the *hypothesis* of Dr. Beale, and consider the elementary form of all tissue, one or another form of Bioplasm, then it is against the vitality of this elementary structure that alcohol directs its influence, and by lowering its vitality in just proportion with the degree of its concentration produces in some cases a vital Plasma or Bioplasm incapable of developing a normal structure, and in other cases an abnormal action or a positive retrogression, or death, so that the very substructure necessary to the development and repair of healthy tissue is impaired or destroyed, and becomes in itself the germ of disease.

M. Kraus of Vienna, gives as his experience that sparkling wines are very injurious. Champagne not only increases the secretions, but in an extraordinary manner the phosphates. And the conduct of the medical men who advise its use in calculous cases, is *irrational and unjustifiable*. He considers that lately-brewed malt liquors are injurious, because the fermenting particles penetrate the mucous membrane and give rise to a greater or less degree of chronic catarrh. And English ale is open to the same objection in consequence of its richness in alcohol, and the great quantity of carbonic acid it contains.

Medical men should be explicit in their attempts to dispel these delusions."

Some time since I was much struck with the force of the following sentiments uttered in my hearing, by a lady in good society in this city. She said "If Doctors knew the terrible amount of harm they are doing by ordering their patients, especially ladies, to take beer, wine and spirits, causing, many to become fond of it, and to become addicted to habits of tipping, they would hesitate before prescribing it." That such a result has frequently followed its habitual use as a medicine, I am convinced, and I should be glad to see it discarded, and a class of remedies resorted to which could not prove worse or more fatal to the patient and to society than the disease itself.

I have known numerous cases in proof of this; and three lamentable instances in my own early practice are vividly impressed upon my recollection—two, the cases of married women who acquired the habit of tipping from the use of gin, prescribed medicinally by myself; and the other a young gentleman, who became a confirmed drinker from the use of bitter ale and porter, also prescribed medicinally. Nor am I at all singular in this, for other practitioners have made similar observations. This has been the case in the experience of Dr. Forbes Winslow, who asserts that during twenty years of practice, he has seen numerous cases of dipsomania (more particularly among women) which could only be traced to the injudicious use of stimulants, given in the first instance medicinally. He also dissents most strenuously from the stimulating theory of the late Dr. Todd, which like that of Mr. Skey, was based upon the assumption that all disease in one stage or another betokens debility, and that nearly all illnesses are preceded by, and, on critical enquiry, may be traced back to some depressing cause, some draught upon the bodily or mental health, which lowers the vital powers, and which in course of time, it may be days or weeks, may develop itself into an attack of illness of any form, and the large majority of which attacks are characterised by a weak pulse. "For this condition of (supposed) real weakness, says Mr. Skey, I prescribe wine as a prominent remedy, to be administered at intervals, more or less long, according to the necessities of the case." Now the above assumption itself any intelligent Physician must admit is pure empiricism, and the resulting theory incorrect, while the attempt to remove what Mr. Skey is pleased to assume to be "real weakness," by a "depressing agent," (which alcohol has been amply proven to be) is certainly a most fallacious and delusive theory of practice, which

too many really debilitated patients have experienced to their cost. Dr. Winslow also makes another important statement in point, when he remarks that "he had heard one of the most distinguished members of the Profession say after the death of Dr. Todd, that he was personally acquainted with many families who *cursed the day* that Dr. Todd entered the house" insinuating that chronic intemperance had been engendered by his too free administration of stimulants in disease. Dr. Wilks, of Guy's Hospital, condemns Mr. Skey's laudations of alcohol, and believes the teachings and treatment of the late Dr. Todd to have been "most pernicious" while he entirely dissents from the views entertained by the late Dr. Todd, Mr. Skey, and others who think with them, as to the necessity of stimulants in fever; and states that in his own wards in Guy's Hospital he treats fever *without stimulants* and *with the best results*. Dr. Wilks, in support of his action in signing the manifesto alluded to in the beginning of this article, instances the treatment of Bronchitis, especially, with stimulants, as *an error which kills many patients*, and deliberately reiterates as his opinion, that if alcohol is ever prescribed it should be *with the same care and judgment* as any other drug, such as iron, or quinine, and he might have added opium or arsenic, aconite or cannabis indica. The truth is, that the more one chooses to enquire into the subject, the more palpable does it appear how erroneous is the presumed therapeutic value, and how false the estimate usually set upon alcohol as a medicinal agent. Many still prejudiced in favour of the utility of alcohol as a medicine, have been constrained, from clinical observation, to *condemn without hesitation or qualification* the practice proposed by Brown, of the last century, and introduced by the late Dr. Todd, of giving alcoholics in all diseased conditions, including acute diseases; while as to his (Dr. Todd's) alleged success in fever cases, it is well known, that the Physician to whom he entrusted the analysis of his Hospital Reports asserts [see British Medical Journal, December 9th, 1865] that the mortality from fever in the hospital attended by Dr. Todd was *much greater than that of any other fever Hospital in Great Britain*. Notwithstanding the accumulating evidence against the theory of *stimulism*, so-called, it is not a little surprising with what tenacity many still cling to it, and this too in the face of the most uncontrovertible evidence, as elicited from an examination of Hospital Statistics, as in the case of the London Hospital, and in the observations made by Drs. Gardner and Russell, in the Glasgow Hospital, shewing that even

the worst form of typhus may be successfully treated without it, and with a greatly reduced mortality rate. Dr. Hartshorne's observations upon this point are well worthy of reproduction here, Speaking of *stimulism*, as the theory and practice of Dr Todd, and now followed by too many others, he says: "It confounds three distinct propositions, 1, That all disease is debility: 2. That all debility should be treated by the use of stimulants; 3, That alcohol is always the best stimulant. Granting with some qualification the first of these, we emphatically deny the truth of the second and third; It is a practice which, like many other specialisms will have its day."

Now all this, and more, might be asserted against the alcoholic treatment—Dr. Ainstie to the contrary notwithstanding—who even goes so far as to make the monstrous assertion that "even a perfectly healthy adult will receive benefit from the use of at least an ounce of alcohol in some form or other daily," whereas the opinions of the most eminent members of the profession, and the daily experience of millions, go to show that perfect health can best be maintained with none, and which the recent experiments of Dr. Parkes go far to sustain.

That it produces serious disturbance of the whole vascular system, frequently resulting in disease of the heart and blood vessels, has been amply proven by the observations of Dr. W. B. Richardson, supported by the experiments of Dr. Parkes and Count Wolloweiz; shewing that the arterial system under alcoholic stimulation is like an engine working under high pressure, and is actually under an excessive tension equal to lifting 36 extra tons daily a height of one foot. The inevitable *break down* is sure to follow.

It is a somewhat significant fact to find in all instances where alcohol has been administered as a restorative in fever hospitals that the mortality rate has always been high. Notwithstanding the over-confident assertion of Dr. Ainstie (who by the way is rather singular in this) that "if the dose be moderate and the administration well timed (two excellent loop-holes in case of failure) the effect upon the nervous system is simply that of a restorative stimulant, sensations of fatigue are dispelled, the mind works more freely, (does it?) a healthy sense of warmth is diffused throughout the body; (this he contradicts in his lecture, before the College of Physicians, where he agrees with Dr. Ringer) and the arterial system acquires an increased tonicity, if it was hitherto deficient in that quality." This he appeals to the sphygmograph of Mr. Marcy to prove, which experi-

ments with it by others contradict, as I have before stated. "If, on the contrary the dose has been immoderate, or administered at a time when it was not required, the pulse waves give a precisely opposite indication, that, namely, which proves that arterial relaxation has occurred and simultaneously with this, the pulse becomes abnormally quick." This last result is that which has been generally obtained where tests have been made by others.

To establish the relative success of the alcoholic or non-alcoholic systems of treatment in fever it would be very desirable to have the two plans submitted to a crucial test in our large Hospitals, when I am confident as to which will prove to be attended with the greatest success. And I base my assumption upon the fact, that since alcohol has been proven to increase the quantity of carbonic acid in the blood, and by interfering with elimination, to cause retention of effete material, (and it may be, poisonous germs that would otherwise be cast off) in that fluid, for there has also been noted the existence in the blood of large numbers of peculiar transformations of the liquor plasma and which recent Pathologists believe to be disease germs in reality,—at all events, effete matter, which but for the action of the alcohol upon the fluid would not exist, not being component parts of healthy blood—this may be undeveloped cell structure; and while a temporary stimulant, yet by repeated doses, it loses that effect and becomes a depressant; therefore, it cannot possibly be otherwise than hurtful in the treatment of such cases.

Dr. Hartshorne, while not entirely denouncing alcoholics in the treatment of Typhoid fever, recommends *Liquor Ammonia Acetatis*, as a diaphoretic, with liquid food. And says concerning alcoholics "*less than half the cases of Typhoid fever which I have seen have required alcoholic stimulation at any stage.*"

[Reasoning from Professor Lehmann's conclusions, Oxygen Gas, or Ozone, may be ranked among the best possible remedies for low forms of disease, such as fevers, &c., where it is possible to administer them. The former may be given in the form of oxygenated waters—two or three pint bottles daily, and the latter may be inhaled from jars filled with oxygen gas, through which an electric current has been made to pass, and which, therefore, contain electrolytic oxygen or ozone. The administration of these gasses in zymotic and other diseases depending upon the presence of a blood poison has long been a favourite idea with me, and I venture to hope that an opportunity may some day present itself for giving them an extended trial. For, I believe with Schonbein that "the exist-

ence of ozone in the atmosphere, and the prevalence of most forms of malarious disease (and also the cholera poison) bear an inverse ratio to each other; and that this will be found to be the case both as respects point of time and locality.

Electricity, in mild currents at first, carefully increased to suit the susceptibilities of the patient, will be found to be an admirable soothing agent in the low, muttering delirium, headache, and nervous excitability of patients endowed with a highly delicate and sensitive organization.

Spongings with Acetic Acid, especially over the head, spinal region, and great trunks of nerves, possess a singular efficacy in this disease, which hitherto has been unexplained.

Alcohol may be necessary to the Pharmaceutist, and indeed is, for there is no menstruum which can well supply its place, although extreme men have gone so far as to propose a substitution of aqueous solutions for tinctures, and emulsions for solutions of gums in spirits. Dr. Attfield, London, advocates the substitution of Aqueous Solutions for tinctures in several instances. I hold, however, that alcohol, in the form of alcoholic beverages, should never be prescribed where they can be substituted by other less dangerous and more effective remedies, because of the seductive and dangerous character which attaches to them. This rule I observe in practice.

The various kinds of alcoholic beverages in use at present, occasions each its own peculiar appearance of the skin. Thus, brandy flushes the face; beer induces a livid hue; rum reddens the nose; gin produces paleness; whiskey—which is only alcohol and water—does neither; and the wines act differently: some causing redness of face and papular eruptions on skin, others causing paleness, and some, the light wines, doing neither. All this may be explained by the nature of their combinations. Brandy, for instance, is spiced with aromatics, which being stimulant, cause redness of surface, in expulsion. Gin is medicated with diuretics, and are carried off by the kidneys, and drawing away from circulation of skin cause paleness. The various kinds of malt liquors occasion at first a dark flush of crimson, becoming finally livid, and eventually inducing a general puffy or dropsical condition. And all this, some would have us believe, promotes health, and is conducive to longevity, a connection which is difficult to appreciate.

There are, however, good offices which alcohol is capable of performing as a therapeutic agent, destructive as it undoubtedly is as a toxicant: when carefully restricted within the limits of its stimulating action, and when administered only in cases

where there is no acute, organic, or wasting disease present to contra-indicate it, and where the system may be considered capable of taking care of itself when once aroused into action. It is possessed of three distinct degrees of action, according to the strength and frequency of the dose, (it being a cumulative poison) and the degree of susceptibility of the patient. Thus it is (1) a stimulant, (2) an anæsthetic (3) a narcotic.

As a stimulant, alcohol must be ranked with Opium and Haschish or Cannabis Indica; drugs which are capable of producing mental excitement. When a dose is administered by way of experiment it is found to disturb the mind, in five to seven minutes; in ten to fifteen minutes there is hilarity of spirits and talkativeness, which may continue for twenty minutes, when it is gradually succeeded by a dreaminess, which passes gradually into drowsiness and stupor if the dose has been large, or into returning consciousness and clearness of intellect if the dose has been limited. In consequence of its varying influence and the rapidity with which one condition passes into another or that succeeding, it is vastly inferior as a stimulant to ammonia, either in the form of carbonate, muriate, aromatic spirits or the liqr. ammon. acet.—all of which act as pure stimulants, and unattended with any sedative, treacherous intoxicant, or dangerous narcotic action; while as an anæsthetic or pain destroyer, it is inferior to chloroform.

A spirituous liquor has been prepared from tea or theine, which is called Robur, a Latin term denoting strength. It is claimed for this spirit that it possesses all the stimulating qualities of ardent spirits, without the after depressing or anæsthetic and narcotic properties. Should this prove to be the case it will be a God-send for the advocates of spirits, although it may not prove all that it is claimed to be, and even so, a worse evil may attach to its use, as in the case of *Absinthia*.

It is quite clear however that, in order that alcohol may be rationally prescribed, (when its use has been decided upon) it is absolutely necessary that certain conditions should be observed. *First*, the nature and percentage of alcohol contained in the beverage (or mixture) must be known, which at present is rarely the case, and it must also be known to be free from adulteration; \* *2nd*, the exact condition of the

\* The strength of alcoholic beverages, or the percentage of alcohol which they contain, may be determined in four ways. *First*, by the use of *Sikes' Hydrometer*, which, for testing the strength of alcoholic liquids, is graduated to indicate the number of parts of pure alcohol in a hundred parts of

patient at the time of administration, as well as the time and mode of giving it, with all the proper tests should be reduced to a system or science as is the case with the administration of other drugs, else the prescription is mere empiricism; and, where it forms part of a plan of Hospital treatment, a careful and comprehensive set of observations should be made with regard to its administration in various classes and conditions of disease, to shew the beneficial results, if any, obtained from the practice in the way of more perfect recoveries and lessened mortality, or the opposite; else the whole system of alcoholic medication is a tissue of fallacy, and based upon suppositions and deceptive theories which have not their demonstration in fact, and are, therefore, mire and quicksands to those who put dependence in them.

Alcohol used externally to fresh wounds, cuts and amputations, affords a valuable dressing by its power of solidifying the albuminous tissues, thus forming a superficial covering better than collodion. It may be useful also in cases of temporary prostration, where there is no actual wasting disease, and in great and sudden prostration from severe mechanical injuries, and in *syncope from sudden loss of blood*, (as after some operations, in uterine hemorrhage, &c.,) fright, or from a sudden violent effort, but a continuance of the remedy would invariably produce increased weakness. If given during the chills of ague, they only increase the reaction or fever, and in diarrhoea or dysentery, if they do not at once relieve, they are sure to aggravate by increasing the irritation in the gastric or intestinal mucous membrane. Dr. Paris (author of *Dietetics*) says: "their habitual use induces more than half of all our chronic diseases." They are often taken for weakness to give strength, and many feeble persons, especially ladies,

liquid. Absolute alcohol being 100, and water 0. This is the most convenient plan; or by Beaumô's, or the Pharmaceutical Hydrometer, which indicate at the same time, the specific gravity and percentage of alcohol by weight at a temperature of 15° c., or 60° fh. Second, by the *Vaporimeter* of M. Gresler, Bonn, which indicates the amount of alcohol by the tension of vapour at a certain temperature (173°) from the fluid containing alcohol, forcing up a column of mercury. Third, Dr. Parkes' method by the process of evaporation and the use of a urinometer. Fourth, by the alcoholometer, as used by Ure.

The percentage being ascertained it is easy to calculate the dose of absolute alcohol administered by the rule of three as follows. A bottle of sherry, 3 half pints, containing 24 oz., of a strength of from 15 to 25 per cent. Say 20 per cent. Then as 100 : 20 :: 24 = 4.80 oz. of absolute alcohol in 24 oz. Now in each wineglass of 2 oz., this would give .40 of an oz. of absolute alcohol administered in each wineglass of such wine. And so with other beverages.

have been taking wine, beer (ale or porter) or spirits for years to strengthen them, and still they are as feeble as ever. The remedy in such cases is discontinuance of stimulants, and substitution of wholesome plain food, at proper times, and regular intervals. They have been given during convalescence to promote recovery, with what benefit multitudes who have watched the recovery of patients with and without them can testify. These recover only so rapidly as the food which they eat is assimilated or appropriated, and this is never improved by alcoholic stimulants. Besides, there is no class of remedies so much misused as are alcoholic stimulants, which have been made by many almost a *universal panacea*. In concluding I repeat, that in no disease has their use been more abused than in fever. It is true that there are conditions in typhus fever, and frequently in typhoid fever, where a stimulant becomes necessary, but in such cases, in my opinion, the preparations of ammonia are more safe and certain, and much easier controlled. Besides they do not interfere with the absorption of milk or other nutritious aliment. In short, there can be no doubt that alcohol is contra-indicated in all diseases dependent upon the presence of a *blood poison* for their cause, and which are invariably of a depressing character, as in typhus and typhoid, the exathems, erysipelas, &c., &c. These diseases require an eliminative and supporting or restorative plan of treatment, of which alcohol cannot from its nature form a part.

In preparing the present article, I have kept a two-fold object in view, namely, while advocating my own opinions to reproduce the views and observations of others who view the subject in the same light.

I have thus inquired at some length into the most important conditions under which alcohol is administered, and I am unable to arrive at any other conclusions than that alcoholic stimulants, in most cases, are neither specially valuable nor indispensable but on the contrary, are most deceptive and illusory adjuncts to the ordinary treatment of disease.

The time is coming when the alcoholic medication theories of to-day, will be classed among the greatest and most indefensible medical errors of the past.

EDITOR MEDICAL RECORD.—Dear Sir,—Since writing the article now being published in your periodical, in which I quote the statistics of the last report of the Montreal General Hospital, giving the death rate in Typhoid Fever as 28 out of 69 cases, or 40.58 per cent, I have been informed by Dr. Howard, secretary to that Institution, that the report is not correct, and that 8 is the correct number out of 49, not 28 out of 69, as appears in the report. A

result, by the way, which does not accord with the experience of other Hospitals where the stimulating plan is pursued, and which does not affect in the slightest my opinion of this plan of treatment, inasmuch as it gives 8 deaths out of 49 cases, or 16.3 per cent. which leaves a margin of 6 per cent, in favor of the non-stimulating plan as pursued in the Glasgow Hospitals. I am glad to be informed that owing to the last portion of my article having been unavoidably held over, it is possible to correct the original text. This you will oblige me by having done in accordance with the data furnished.

By doing this, you will greatly oblige,

Yours, &c.,

W. E. BESSEY, M.D.

P.S.—Dr. Howard, in a recent letter to the *Witness*, gives the number of admissions for Typhoid Fever during the 10 years immediately preceding 1871-72 as 385, and the number of deaths as 36, giving a mortality rate of 9.35 per cent. This result is so exceptionally favorable for the Alcoholic plan of treatment in Typhoid Fever that I venture to affirm that if the two systems of treatment be subjected to a crucial test in the same Hospital, on patients of the same class, and under the same conditions, alcoholics being administered to one lot, and *ammonia* as a stimulant to others, with milk diet, it will be found that the alcoholics have sadly suffered by the comparison.

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### Communication.

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To the Editor of the CANADA MEDICAL RECORD:

SIR,—Although a young practitioner I have been a member of the Medico-Chirurgical Society for some time. Medical Societies are the source of a great deal of benefit both to old and young members of our profession, but I am afraid such is not the case with us. Some members are too fond of epitomising articles from standard authors and delivering their remarks as though they were addressing a body of illiterate men, much in the same way as a professor addresses freshmen.

Several times have I gone home and turned up Reynolds' system of Medicine, Holmes' Surgery, &c., and discovered the fountain-head of a long address, delivered as if it had been based on past experience. Such members ought to know that our Society is not composed of ignorant men, and that the meetings are not attended merely with the view of listening to recitals of eminent men's opinions by the lesser lights of Montreal.

The young Medical men of this city are essenti-

ally a reading class, and are quite conversant with most of the standard authors; and the meetings are supposed to be attended with the view of listening to each other's experience and profiting thereby.

I hope, Sir, such members may see the folly of their ways, and in future not bore men with matter with which they are already conversant.

Another thing also that strikes me as being rather odd, is the publication of operations in the daily papers. I remember once a Medical student, partially connected with the Press, was severely reprimanded for having inserted two operations of an eminent practitioner, but unconnected with any School. One was an excision of a portion of the clavicle, and the other was a shoulder amputation.

All is now changed, and the rule is to puff as much as possible. Lately there were puffs in two separate columns of a morning paper.

It is also very strange the two Medical Journals cannot report things alike. In reading the report of the last meeting in the "Canada Medical and Surgical Journal," one would almost believe the tumour had been excised, instead of only half; and the remarks of one or two appear twisted and turned into laudation of a dangerous operation, for the performance of which there was hardly an excuse.

The fact is, Sir, there is not sufficient independence among individual members of our Society, and too much of the mutual admiration element; and juveniles like myself are expected to look on admiringly.

I remain, Dear Sir,

DIOGENES, JUN.

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### Progress of Medical Science.

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#### THE SYNTHESIS OF ACUTE RHEUMATISM.

BY DR. BALTHAZAR W. FOSTER, PROFESSOR OF MEDICINE IN QUEEN'S COLLEGE, AND PHYSICIAN TO THE GENERAL HOSPITAL, BIRMINGHAM.

[The facts recorded in the following paper, when added to the arguments which have been adduced by Prout, Richardson, and other writers, will strengthen considerably the evidence which points to lactic acid as the poison of acute rheumatism.]

In the *British Medical Journal* of February 25th, 1871, I read with much interest an account of Dr. Cantani's observations on the lactic acid treatment of diabetes. At that time, I was engaged in completing an inquiry into the effects of different drugs on the sugar-excretion in diabetes. I determined to add one more drug to my list, and to complete my research by observing the effects of lactic acid.

A man (Wright) who had just come into the

General Hospital under my care, suffering from diabetes, offered me the opportunity. His age was 31, and he had been ill some four months before his admission. By trade he was an iron caster, and up to this attack of illness he had been a healthy man, and had never suffered from rheumatism. He was married, and had several strong, healthy children. On a mixed diet, he passed during the first week of his stay in hospital an average of 180 ounces of urine daily, containing 49 grains of sugar in the ounces. On a strictly animal diet, continued two weeks, the sugar fell to an average of 36 grains an ounce, and the urine passed to an average of 116 ounce daily. The skin was dry and branny. The sugar excretion remained pretty stationary on strict diet, but lung-symptoms began to manifest themselves, and steadily increased.

On March 8th, I ordered the patient fifteen-minim doses of lactic acid dissolved in an ounce of water four times. The dose was doubled the next morning, and in the afternoon he complained of acute pains in his joints, and flying pains about his limbs. In the evening, as these pains had increased, the medicine was discontinued by order of the resident medical assistant.

On March 10th, no lactic acid mixture was taken, and the pains gradually ceased.

On March 11th, I saw the case; and regarding the occurrence of the joint-pains as a mere coincidence, repeated the lactic acid in fifteen-minim doses three times a day. On the evening of the 12th, he again felt pains in his joints; and on the morning of the 13th, "the small joints of the fingers of both hands, the wrists, and, in a less degree, the elbows," were noted by the resident medical assistant Mr. E. A. Elkington, to have become "red, swollen, and painful." On my visit I was much struck by the appearance of these joints, which were typical specimens of acute rheumatic arthritis. In the evening, both wrists, the small joints of the fingers, and the elbows were all red, hot, swollen, tender, and painful. The heart-sounds were clear. The temperature in the morning was 100; in the evening 101 F. He had moderate perspiration. Pulse 90, soft and full. The joints were wrapped in cotton-wool, and the lactic acid was discontinued.

On March 14th, in the morning, there was a decided improvement in all the joints; the swelling had much diminished, but heat and pain were still present. Temperature 100; pulse 84. In the evening, all the small joints of the fingers were much better. The wrists were still affected, and he complained of a good deal of pain in the knees, which had hitherto escaped. The heart-sounds were clear. Pulse 90. Temperature 100.8.

On March 15th, the joints were better. The temperature in the morning was 98.6; in the evening, 99.4.

On March 16th, he said that his arms were quite well; his legs nearly so. He had slept much better.

On March 17th, all pains in the joints were gone. Temperature 98.2. Pulse 72.

During the next twelve days, no lactic acid was administered. The case was put clearly to the man,

and, as he had felt benefit from the acid mixture and had passed less urine during its use, he elected to run the risk of acute rheumatism. Accordingly, on March 29th, I prescribed seventy-five minims of lactic acid dissolved in twenty ounces of water. This was to be taken as a drink in the course of twenty-four hours. During the next five days, no rheumatic symptoms appeared. The pulse rose twelve beats on and after the third day; the temperature, which had been previously elevated by the long complications, showed no marked change, but on the fourth and fifth days remained steadily at 99°, instead of varying as it had done for some time previously. On the morning of the sixth day (April 4th), he complained of having had a bad night from joint-pains, which had disturbed him very much, and which came on suddenly after midnight. On examination, the metacarpo-phalangeal and first phalangeal articulations of the first and second fingers of each hand were found to be red, swollen, hot, and painful; the slightest movement aggravated the pain, and he could not on this account pick up anything with his fingers. The pulse was 102. The temperature, which on the previous evening had been 98.2, had risen to 99.4. The heart-sounds were clear. The acid mixture was stopped, and in the evening the pain in the knuckles was less, and the redness had diminished; they were, however, still stiff. No other joints were affected. Temperature 99.2.

April 5th. His hands were much better, and of his own accord, he resumed his lactic acid drink, and took about thirty minims of acid in the course of the forenoon. In the evening the pains had returned in the knuckles, which were swollen, red, and tender. He discontinued the acid, had a fair night, and on the morning of the 6th, found his hands free from pain. He again resumed the lactic acid, and took up to 4 p.m. the remainder of the bottle, containing about forty-five minims of acid. In the evening at 9 p.m., the pain and swelling had returned in his knuckles, and his left wrist was also affected. He now gave up the acid for two days, and the joints-symptoms gradually disappeared.

The acid drink was resumed on the 9th, and continued to the 13th, but he only took about thirty-five minims of acid a day. He experienced no inconvenience except flying pains about his joints, till the night of April 13th, when he was disturbed by severe pain in the right wrist, which was found in the morning to be red, swollen, painful, and hot, and was a typical specimen of rheumatic joint. Pulse 98, full and soft. There was copious perspiration, of acid reaction. The heart-sounds were clear. The elbows and knees became painful and stiff the next day. The joints were all wrapped in cotton-wool as before; and in the course of four days nothing remained except a little stiffness in the right wrist. After a week's interval, the acid was again taken, with like results.

The man now had gained so much experience as to the first indications of a coming attack in his joints, that he was allowed discretionary power as to the time and manner of taking the mixture. By

trying it first in small doses, so as not to take more than twenty minims of acid a day, and stopping it for a day or so whenever the joints threatened, he managed to continue the acid for some weeks. Gradually he increased the dose, as advised, and early in June was able to take from forty to fifty minims daily. During this month, he had two sharp attacks of rheumatism in the hands and wrists. By the end of June he was taking seventy-five minims of acid daily; and on July 6th, this was increased to 100 minims. On the 7th, he began to experience considerable pain and stiffness in his joints, and kept his bed (he had been up daily previously) on account of the pain caused by walking. On the 8th, these symptoms were worse, and in the evening his wrists and elbows were very stiff and painful, but the knees were less so. The temperature had risen to 100·6. The acid was stopped. On the next morning he was better. Temperature 99. The joints were less painful and stiff; there was no redness and no swelling. On the 10th, he again took the acid, his joints feeling much better, and the temperature being only 98·4. In the course of the day, he took 100 minims of the acid; and by the evening the pains had returned in his wrists, elbows and knees. Temperature 100·6; pulse 100, full and soft; skin moist and perspiring. On the morning of the 11th, his right wrist was red, and swollen; the left less so. The knuckles of his right hand were also red, swollen and painful. His left knee was red, swollen and very painful and tender. He complained also of pain in the left side, but the heart-sounds were found to be clear; pulse 88; skin still moist. The mixture which had been stopped on the previous night, was discontinued till July 17th, by which date all the rheumatic symptoms had subsided. After this the man only remained in hospital seventeen days. During this period, he, of his own desire, resumed the acid drink, and on one occasion took as much as 125 grains of acid in the course of twenty-four hours. During the last fortnight of his stay in hospital, he had no severe pains in his joints, and whenever flying pains warned him, he discontinued the medicine for a day.

While the above case was under my care in the hospital, it so happened that another diabetic patient of mine, in visiting the wards, met Wright and compared notes with him. From him he heard such a favourable report of the acid treatment, that he requested me to order him the same medicine if I thought it suitable. I did so. A drink consisting of seventy-five minims of lactic acid in a pint of water was prescribed. Of this he took daily as much as contained thirty to fifty minims of acid; and on the fourth day he came to me complaining of a sharp pain in his right knee, which rendered the joint stiff, and made walking very painful. He also mentioned that he had less severe pains in his other joints, and expressed his opinion that he had caught a cold, which had produced rheumatism, a disease from which he had never before suffered. There was no swelling or redness of the knee or other joints. His skin, which had hitherto been harsh and dry, was soft and moist. The acid mixture was discon-

tinued, and in two days the pains had entirely ceased. During the next month, he made several attempts to take the acid mixture, but it was always followed in a day or two by pains in the joints. Early in May, he managed to take the mixture for a week, and then was laid up with such severe joint-pains, that I was called to visit him, and found him in bed with pains in his elbows, shoulders, ankles, and knees, and, as he said, all over him. None of the joints were swollen except the right knee, which was faintly red, decidedly swollen, and very tender and painful. The other joints were simply stiff and painful on movement. The skin was freely perspiring. Pulse 96, full and soft. The acid mixture was stopped, the joints were wrapped in cotton-wool, and alkalies administered. In the course of a week, all the symptoms had disappeared, and the patient was able to walk about, and resume his ordinary habits. This patient had never passed more than twenty-four grains of sugar an ounce while under observation. The excretion was generally not over fifteen grains an ounce.

*Remarks.*—The above record contains an account of the joint-symptoms which were observed in two cases to follow the administration of lactic acid. In the first case, at least six well marked arthritic attacks occurred; in the second case, under conditions less favourable for observation as to duration of treatment and place, one well marked attack occurred. The phenomena corresponded in all respects to those which are characteristic of acute articular rheumatism. They came on when the acid was taken, and ceased when it was discontinued. When moderate quantities of the acid were tolerated, an increase in the dose was succeeded by the painful inflammation of the joints. Coinciding with the development of the articular affection was the appearance of perspiration, at first only slight, but afterwards, in the more severe attacks, copious and acid.

These facts have dispelled the last lingering doubt in my mind as to the truth of the lactic acid theory of rheumatism. At first I doubted the connection between the administration of the acid and the production of the rheumatic phenomena. In my scepticism, I regarded it as an accidental combination. The recurrence of the joint-symptoms, however, on March 13th, following distinctly on the repetition of the lactic acid mixture, shook my disbelief. The coincidence of joint attacks with the use of the drug might occur once, and I thought even a second time; but, when I found it occur over and over again, there was no room left for the hypothesis of coincidence. To refer Wright's attacks to a series of accidental combinations requires, in my opinion, a much livelier faith than to accept the lactic acid theory of acute rheumatism. If to some Wright's case presents not evidence enough in the beautifully typical character of the artificially produced disease, and in the precision with which it could be manufactured at the will of the experimenter, then the second case comes in to refute any explanation founded on the assumption of an idiosyncrasy on the part of one patient.



In health, no doubt, much larger quantities of lactic acid than any given in my cases would be excreted without producing any perceptible disturbance in the bodily functions. The acid would escape by the skin, the kidneys, or, after oxidation, as carbonic acid and water. It cannot be justly argued that the quantities of acid taken by my patients were too small not to have escaped in this way. The conditions under which the drug was given must be borne in mind. In diabetes we have a state of suboxidation very unfavourable to the conversion by oxidation of new compounds; and in Wright's case this was aggravated by the serious pulmonary complications. Associated with these, there was a dry and branny state of the skin highly unfavourable to the elimination of the lactic acid by one of the common channels. Lastly, the well known persistent acidity of the urine in diabetes points to a pre-existing hyperacidity of the fluids. These considerations are, I think, important, as defining the conditions under which the experiments were made—conditions most favourable to the development of the specific effects of the lactic acid. It was the combination of all these which rendered Wright so susceptible to the action of the drug. By the absence of one of them (the lung-complication), and the minor degree of glycosuria, we may probably explain the slighter susceptibility in the second case. The larger doses of acid which Wright was able to take occasionally, towards the close of his stay in the hospital, find an explanation partly in his more careful management of the remedy, partly in an acquired toleration of it, and partly in the great improvement which occurred under treatment in the state of the respiratory organs and in the sugar-excretion.

I refrain for the present from discussing the bearings of my observations on the therapeutics of rheumatism. The effects of the lactic acid on the excretion of sugar will be considered, with other modes of treatment, in a future paper. In this communication, my object has been to lay before the profession facts which have an important bearing on the origin of a common and serious malady. If, by pointing out the nature of the poison of acute rheumatism, they help in the smallest degree to improve therapeutics, they will not have been observed in vain.—*British Medical Journal*.

#### ON NERVOUS OR SICK-HEADACHES.

By Dr. P. W. LATHAM, Physician to Addenbrooke's Hospital, Cambridge.

[The pathology of nervous or sick-headache is a defective supply of blood to some portion of brain, owing to contraction of one of the cerebral arteries, probably the middle cerebral. There is generally loss of tone of the cerebro-spinal system, from overwork, anxiety, or some similar cause. The headache is frequently preceded by a glimmering of some portion of the field of vision of one eye. If the patient will lie down this glimmering not unfrequently passes off or becomes much less intense, and the headache

which would have followed is averted or correspondingly modified.]

Let us consider separately the remedial measures to be adopted (1) during the stage of disturbed sensation, (2) during the stage of headache, and (3) during the intervals between the attacks.

1. *During the Stage of Disturbed Sensation.*—In the forms attended with disturbance of vision, you will find that in the same individual the longer this stage lasts, the greater will be the headache; and therefore we must endeavour to shorten it as much as possible. If the condition, then, depend upon deficient supply of blood to a part, such means must be adopted as shall assist and increase the flow of blood to the part; and this can be done in some measure by posture and stimulants. Directly the glimmering appears, the patient should lie down with the head as low as possible, and if the glimmering be on the right or left of the vision, he should lie on the *opposite* side. Let him take at once a full-sized glass of sherry; if at hand, half a bottle of soda water is a useful addition. Champagne would be preferable, being more diffusible; but its administration would often involve a little delay, and at the commencement of an attack it is a great point to save time. A large tablespoonful of brandy diluted may, if the patient prefer it, be substituted for the sherry. If alcoholic stimulants be objected to, or if it be not advisable to recommend them, then a teaspoonful of sal volatile in water may be prescribed instead. If the patient be chilly or his feet cold, the couch should be drawn before the fire and a hot bottle applied to the feet. By these means the heart is enabled to drive the blood with greater force to the brain, and the duration of the vibratory movement is thereby materially lessened. After it has passed off, the patient should lie still for a time, so that the glimmering may not return. This injunction will only be necessary when the headache is slight; if it be severe, attended with much nausea or vomiting, the patient will be little disposed or able to leave the recumbent position. If instead of the disturbance of vision preceding the headache, there be a feeling of depression or irritability, fidgets, &c., the administration of such cerebro-spinal stimulants as henbane, valerian, asafoetida, spirit of chloroform, or ether, will often cut short the attack; ten or fifteen drops of the tincture of henbane with the same quantity of spirit of chloroform, will soothe the nervous irritability in the slighter forms, and may be repeated in three or four hours, if necessary. If there be great mental depression, then valerian or asafoetida should be tried. Stille says: "Nothing is more astonishing in the operation of remedies than the promptness and certainty with which a dose of valerian or asafoetida dispels the gloomy visions of the hypochondriac, calms the hurry and agitation of nervous excitement, allays commencing spasms, and diffuses a soothing calm over the whole being of one who but an hour before was a prey to a thousand morbid sensations and thick-coming fancies of danger, wrong, or loss." I give the preference to valerian, and prescribe from half a drachm to a drachm of the ammoniated tincture. The asafoetida

may be given in the form of the spiritus ammoniæ foetidus; of the *Pharmacopœia*, also in half drachm or drachm doses. As a rule, alcoholic stimulants are not advisable here. A small quantity will cause flushing, heaviness, slight confusion of thought, &c., without relieving the depression; and though the severe headache may be averted, alcoholic stimulants do not answer so well as the remedies previously mentioned.

2. *During the Stage of Headache.*—If the headache be slight and the patient soon able to sit up, there is little to be done; a cup of coffee or tea, cheerful conversation, a walk, drive or ride, may often help to remove the pain. If, however, the headache, nausea, &c., be severe then the administration of further remedies is called for. The patient should keep perfectly still and quiet, with the room darkened; for every sound or sight causes pain, and the slightest movement is sufficient to produce gastric uneasiness. Sometimes free evacuation of the contents of the stomach, especially if it contain undigested food, is followed by relief. Dr. Fothergill says, "an emetic and some warm water soon wash off the offending matter and remove these disorders," which may be very well where there is any offending matter to wash off, but it is not very often that this is the case; the nausea frequently continues long after the contents of the stomach have been discharged; an inverted action of the duodenum is set up; the bile appears in the fluids excreted; the patient believes that all his troubles are due to "its overflow;" "it's all liver," he says, and it is sometimes difficult to persuade him to the contrary. Generally, then, you should try to relieve and check the vomiting. Lead soda-water, with or without two or three drops of dilute hydrocyanic acid or spirit of chloroform; cold tea; the effervescing citrate of potash, with hydrocyanic acid, may often afford marked relief. The headache may be lessened by applying cloths dipped in cold water; or evaporating lotions to the head; if the extremities be cold and the headache severe, a warm stimulating foot-bath can be tried so soon as the nausea will allow the patient to sit up. If the attacks occur in the early part of the day, as soon as the pain has subsided, it is generally better for the patient to sit up, or move about, or take exercise in the open air. A young lady, on consulting me for this disorder, said: "Nothing relieves these headaches except a good gallop on my pony. I have sometimes to lie still for three or four hours before the pain is bearable; but directly I am able, I mount my pony and always return home better." During the attack the appetite is diminished, the idea even of food provoking disgust. Still, after the nausea has passed away and the headache has continued a few hours, a plate of soup or some easily digested food will often have a good effect in equalising the cerebral circulation. A remedy which may very often be given with advantage if the headache be severe, is bromide of potassium in doses of 5, 10, or 15 grains, to which 30 or 40 minims of sal volatile may in some cases be added with advantage; and if the nausea still continue, these may be given in combination with the effervescing

citrate of potash. A saline purgative at the commencement of an attack is sometimes an effectual remedy; but, as a rule, the use of purgatives is objectionable.

So far, the measures which I have suggested are only palliative. We come now to the consideration of such as are preventive, or to the treatment necessary during the intervals between the attacks. First of all, you must try to find out the exciting cause and endeavour to remove it. Hours of study or work must be abridged; excessive bodily fatigue, loss of rest, everything in fact, must be avoided which the sufferers know from individual experience will act as exciting causes. Where the attacks are associated with excessive mental work, they should be regarded as danger-signals, showing necessity for relaxation. In the next place, you must endeavour to improve the tone of the bodily and nervous systems by proper medicinal and hygienic means; and the chief remedies which I employ are steel, strychnine, and cod-liver oil. The success, however, following these remedies depends a great deal upon the way in which they are administered. For a day or two after the attack the stomach and bowels may possibly be disordered, and not in a fit-state to tolerate such remedies. This must first be corrected. The simple vegetable bitters such as gentian, with small doses of henbane and some aromatic, may be of service, and, if necessary, one or two grains of blue pill, with four or five of compound rhubarb pill, may be given at night. We may then try steel. If the attacks have been very frequent, or if there be any serofulous tendency, I give the iodide of iron in the following form. *R. Ferri et ammon. citrat, gr. v; potassii iodidi gr. ij; 3j; and I add, according to circumstances, 15 to 20 minims of tincture of henbane, or 20 to 30 minims of aromatic spirit of ammonia.* If the stomach be at all irritable, I give this in the effervescing form adding to each dose 20 grains of bicarbonate of potash, and directing it to be taken with a tablespoonful of lemon-juice or a corresponding amount of citric acid: the dose to be taken twice a day, about 11 and 4. I soon leave off the effervescing form, and then add to each dose five minims of liquor strychniæ, omitting the henbane and sal volatile, and continuing the iodide of potassium according as it seems to be indicated or not. In other cases, I give the citrate of iron and ammonia with strychnine at the beginning, and sometimes combine them with infusion of calumba. The iron is indicated by the greater or less anæmia of the patient; but the strychnine is, in my opinion, a very important remedial agent in the disorder. In small doses, it acts as a simple tonic, increasing the appetite and improving the digestion; it dilates the vessels, and thus increasing the supply of blood, it augments the activity of the spinal cord (Harley). It promotes the capillary circulation, and therefore its use is advisable for persons troubled with cold hands and feet (Anstie); and if it fulfil these conditions, it is clearly indicated in the disorder which we are considering. Cod-liver oil also often acts very beneficially. "It has been found by experiment that great exertion and prolonged labour can be endured

without fatigue when starchy and fatty foods are alone eaten . . . and there is reason to think that cod-liver oil is more easily absorbed than other similar substances" (Ringer). "It improves the digestive process, increases the proportion of red corpuscles in the blood, and invigorates the whole nutritive function" (Wood); and I believe it particularly sustains the energy of the brain during prolonged mental exertion. A gentleman in the foremost rank at the bar told me that, whenever he was engaged in a jury-trial which was likely to tax his energies to a greater degree than usual the thing which best sustained him was a good dose of cod-liver oil taken in the morning before going into court; and others engaged in mental work have confirmed this view. I therefore regard cod-liver oil as having, besides its other properties, a nutrient and tonic action on the cerebro-spinal nervous system. As a remedy for these nervous headaches, I only prescribe it once a day, beginning with a small teaspoonful immediately after breakfast, and gradually increasing the quantity to a tablespoonful, but not beyond, unless in exceptional cases.

You must take care to regulate the action of the bowels, but by no means have recourse to strong purgatives. Five grains of the Socotrine aloes pill, given at night are generally sufficient. If the bowels be habitually constipated, then no remedy seems to answer so well as the aloes and iron pill. Five grains given twice a day, half an hour before meals, will act freely; and in a few days you will have to diminish the dose, for the remedy possesses this advantage, that its effect is augmented instead of being lessened by continual administration, especially when strychnine is given at the same time. The natural waters of Friedrichshall or Marienbad may in many instances be of service, given as laxatives.

Besides the remedies to which I have called your attention, others have been recommended, such as arsenic and quinine, caffeine, &c. Where anæmia is not a prominent symptom, they may sometimes be of service.

Lastly, you must lay down stringent rules for your patients with regard to diet and exercise, and you must impress upon them the importance of these rules being strictly observed.—*British Medical Journal*.

## DISEASES OF THE URINARY ORGANS.

### TABLE FOR THE EXAMINATION OF URINE.

By Dr. J. CAMPBELL BROWN, Lecturer on Chemistry and Toxicology at the Liverpool Royal Infirmary School of Medicine.

I.—Observe the colour and appearance of the urine, whether it is clear or turbid, and whether it contains much mucus.

A high colour may be due to BILE, BLOOD or PURPURINE; a pale colour may indicate excess of WATER, and frequently also GLUCOSE.

II.—Observe the reaction to red and blue litmus papers.

Normal urine is slightly acid; if the reaction is alkaline, and the red colour of the paper is restored on drying it, the alkalinity is probably due to ammonium carbonate from the decomposition of urea; confirm by observing whether effervescence occurs on the addition of an acid to the urine.

III.—Observe the specific gravity.

a. If the specific gravity is above 1025, test for glucose by (1.) potash solution and heat; GLUCOSE gives a dark solution. (2.) Add potash and filter, if necessary, then add copper tartrate and more potash until a blue solution is obtained; on heating to the boiling point glucose reduces a red or orange precipitate of  $\text{Cu}^{\circ}$  O.

b.—If the specific gravity is high and sugar is not present, add to a portion of the clear urine in a deep watch-glass about one half its volume of cold concentrated nitric acid; a deposit of hexagonal plates of urea nitrate indicates excess of UREA. (Probably excess of phosphates and other salts will be found accompanying excess of urea.)

c. If the specific gravity is below 1012, this may be due to great dilution of the secretion with WATER, which will be further indicated by a large quantity passed in twenty-four hours; but it is more generally due to disease of the secreting organs, and is accompanied by albumen, the urine being then frequently alkaline, but sometimes acid.

IV.—Heat a portion to the boiling point in a test tube, albumen may be at once coagulated; add nitric acid drop by drop; a flocculent precipitate indicates ALBUMEN; confirm by adding to another portion of the urine acetic acid, filtering to remove mucus, if necessary, and then adding potassium ferrocyanide; a white precipitate indicates ALBUMEN. The deposit from an albuminous urine should be examined microscopically for CASTS, PUS and BLOOD GLOBULES.

Boiling alone may first cause a precipitate of CALCIUM PHOSPHATE, which will be re-dissolved on the addition of nitric acid. If a turbid urine is rendered clear by boiling the turbidity is due to urates.

V.—Add to a portion of the urine, ammonia in excess; the white precipitate consists of ALKALINE-EARTHY PHOSPHATES; filter and add ammonium chloride and magnesium sulphate; the white crystalline precipitate indicates the amount of phosphate which was originally present as ALKALINE PHOSPHATES.

VI.—To another portion add ammonia and filter; then add ammonium oxalate; the white precipitate contains the CALCIUM as oxalate.

VII.—To another portion add nitric acid; divide into two parts; to the first add barium chloride; the precipitate contains SULPHURIC ACID as barium sulphate. To the second add silver nitrate; the curdy precipitate contains the CHLORINE as silver chloride.

VIII.—A dark brown or blue colour may be due to INDICAN, which is destroyed by nitric acid.

Any colour from that of Gregory's powder to an olive green tint may be due in part to bile.

(1.) Pour a layer of the urine (concentrated if necessary,) on to a white dish, and add concentrated

nitric acid. A play of colours, green, blue, purple, and red, indicates BILE PIGMENT.

(2.) Boil a portion of the urine with acetic acid, and filter to remove albumen, then add a few crystals of cane sugar, and a few drops of concentrated acid; a purple tint indicates the ACIDS OF BILE.

A red colour may be due to blood; in this case heat will have destroyed the colour, and coagulated the albumen of BLOOD. Examine.

(1.) by the microscope for BLOOD GLOBULES, and

(2.) by the spectroscope for HÆMATINE.

A high colour may also be due to purpurine. In this case it is unaltered by heat and by nitric acid. Boil a portion with hydrochloric acid. A dark red or purple colour indicates excess of PURPURINE, of which a small quantity is present in normal urine. Allow to stand for a day; the crystals which slowly form are URIC ACID an excess of which frequently accompanies purpurine. — *Liverpool Medical and Surgical Reports.*

#### POISONED BY MERCURY FROM A TOOTH FILLING.

The following, from a Nebraska paper, shows that the "amalgam question" received some attention in the West: "Last Wednesday evening the intelligence was noised about that Mr. John C. Smith, a middle-aged man, unmarried, who lived in a small house next west of the residence of S. W. Allen, was dead. It was known in town that he had been suffering for some days with a swelled face and neck, coming from a tooth, which Dr. Keef, of Marysville, had lately filled, but his death was not thought possible. Dr. Sprague attended the deceased at first, but afterwards called Drs. Davis and Buffon: all of whom agreed that he was suffering from the effects of mercury, present in the amalgam used in filling one of his teeth. The filling had salivated the unfortunate man, and as the inside of his mouth, throat and windpipe swelled, respiration was hindered, and it finally ceased altogether.

"Poultices were applied, and other means used to reduce the swelling, but all to no purpose. Mr. Smith died about 7 o'clock Wednesday evening.

"By request of a number of the citizens, Coroner Buchanan next day ordered a *post mortem* examination to be made of the remains and an inquest to be held. Dr. Davis made the examination, opening the chest and taking out the lungs, and also extracting the filled tooth. No signs of any other disease were found except that caused by the mercury, and it was made clear to the jury by the Doctor that this caused the death.—*Dental Magazine.*

#### TREATMENT OF RINGWORM.

Dr. Tilbury Fox, in the course of some observations on the mode of preventing the extension of ringworm in schools, remarks that isolation at all hazards is the first thing to do. When a number of cases occur, it is better to separate instances of very bad and extensive disease again from slight new cases and convalescents, for the simple reason that active treatment may at once annihilate the disease

in the former, and in new cases and convalescents fresh implantations over the, in the main, healthy area of the scalp may be taken place from contact with bad cases of tinea. Dr. Fox would, of course, only adopt this plan where the cases of disease are very numerous—say thirty, forty, and fifty or more.

There are, next, certain general considerations to be taken account of. Attention to the dietary is one; for the under-fed, and ill nourished, and ill kept furnish the most appropriate nidus for ringworm. All deficiency in meat should be rectified, and in case the attacked or the non-infected look sickly or pallid, the allowance of meat and fresh vegetables should be increased, and supplemented by iron and cod-liver oil. So again, the cubic space allotted to each child should be ample, ventilation free, and cleanliness enforced with exceptional strictness. One word more as regards the general health of children. If with a vigorous system of inspection in constant operation many cases rapidly appear, and, in spite of hygienic measures, spread, the children furnish clearly a very suitable soil, and the dietary of the establishment should be looked to. If ringworm becomes epidemic, with a *bad system of inspection*, it implies simply neglect, of course. Here isolation is the main thing needed to protect the healthy, and not feeding up.

In all cases in schools the hair should be cut short, close to the scalp. Recent cases are at once checked and often cured by simple blistering. The disease, not having reached the bottom of the hair follicles, is at once accessible to remedies. The use of strong acetic acid is perhaps as good as the blistering fluid. If the case is not very recent, epilation of diseased hairs, after the Paris fashion, should be practiced. It is generally "too much trouble to do this." Dr. Tilbury Fox next enforces the use, every few days, of Coster's spaste to the extent of some five or six applications, and the subsequent use, night and morning, of some parasiticide ointment, diluted citrine ointment, or sulphur, creasote, and ammonio-chloride of mercury. The head should be washed each day and well greased. The latter prevents the escape and dissemination of fungus germs. If preferred, the head may be kept soaked in diluted sulphurous acid: of course a proper cap of silk should be worn.

It is scarcely necessary to do more than refer to the necessity of thoroughly cleansing the brushes, combs and towels of the diseased, and seeing that these are not used in common by the healthy and the infected. Towels should be well boiled. To one novel point Dr. Fox directs special attention: it is the disinfection of the air of the wards in which a large number of cases of ringworm have been. His recent observations show that the fungus germs are floating in the air; and though Dr. Fox had until lately no experience to go upon, because the observation is as yet a novel one, yet he has no hesitation in saying that the air of the wards should be disinfected by burning sulphur, if, after complete isolation has been practised where many cases of ringworm have occurred, other instances of disease still continue to appear amongst the previously healthy. (*Lancet*, Jan. 6, 1872.)

## A REMEDY FOR HÆMOPHTYSIS.

Dr. Holden says, in the *Medical Record*, that he desires to call the attention of the profession to a method of treatment of hæmoptysis, which, while most simple and efficacious, he has not seen described by any, viz., the throwing of the atomized vapour of a saturate solution of gallic acid directly into the mouth and throat. He has repeatedly found the most gratifying success follow at once, even in cases of profuse hæmorrhage. Unlike other styptics thus administered, it quiets the spasmodic cough, which seems the direct result of the presence of the blood, requires but a moment to prepare, and, aside from its efficacy, it inspires immediately the confidence of the patient. For about two years he adopted this method, and has been surprised that no similar experience has found its way into the medical journals. His habit has been to have an atomizer and bottle of gallic acid always at hand, and when summoned hastily, to mix the acid in a tumbler of cold water, and use even without waiting for the excess of acid to subside. It has proved successful in several cases where the blood was streaming from the mouth with every expiration. (*Med. and Surg. Reporter*, No. 768.)

## CARBOLIC ACID INHALATIONS IN CHRONIC BRONCHITIS.

BY JOHN A. LIDELL, M.D., NEW YORK.

In a bad case of chronic bronchitis—a case in which there was strongly marked bronchiectasis on both sides, harassing cough both by day and night, profuse muco-purulent secretion that oftentimes was very offensive in smell, and emaciation with other general signs of bronchial phthisis, the writer has recently administered carbolic acid by inhalation, and made the patient comfortable by so doing, when every other palliative had failed.

At first it was given in the vapor of hot or warm water; but, after a short trial, these inhalations were discontinued, because they made the patient perspire too much. Then it was administered in the form of spray with Codman & Shurtleff's atomizing apparatus No. 5, and the result was gratifying in every respect. The preparation which was used most, consisted of the crystallized acid dissolved in water in the ratio of one grain of the former to one ounce of the latter, that is, 1 part of the acid to 480 parts of water. Trials were also made with a solution as weak as 1 part to 600 on the one hand, and as strong as one part to 300 on the other, but those having a strength of 1 part to 450 or 480 answered best. The patient was made to breathe or inhale the spray with deep inspirations, from five to ten minutes at a sitting, unless a feeling of drowsiness were sooner produced, once a day, usually; twice a day, however, when the expectoration was very profuse or offensive in smell.

The use of these inhalations was continued on and off for about eighteen months without producing any unpleasant consequences whatever. On the contrary

they always gave the patient marked relief. They invariably soothed and quieted the cough. They corrected the fetor of the breath and of the expectoration. They lessened the quantity of the expectoration itself in a decided manner without tightening the cough or rendering it dry. And they proved beneficial in other respects, for under their use the pulse became less frequent and irritable, and the tendency to afternoon fever was likewise diminished. Notwithstanding, this case terminated fatally (although the end was long postponed,) and therefore carbolic acid inhalations must not be considered as, in any sort of way, a specific for chronic bronchitis. However, our patient's life was obviously prolonged, and her comfort was greatly promoted by their frequent use. It is, then, as a palliative of more than ordinary value in the treatment of this disease that we now confidently recommend the inhalation of carbolic acid.

The only contra-indication to its employment in chronic bronchitis which we observed, was the contraction of a "fresh cold," especially when attended with fine crepitation. Under such circumstances we always judged it expedient to suspend the inhalations until the acute symptoms had passed away. Carbolic acid appears to be too irritating in its nature to be used in this way with safety in cases where there is acute inflammation of the pulmonary tissue or of the bronchial mucous membrane. But, in cases where those chronic inflammatory conditions of the bronchial mucous membrane, which need a stimulating plan of treatment, are present, this agent may be administered in the way mentioned above, without risk, and with great benefit to the patient.—*New York Medical Record*.

## THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

EDITOR:

FRANCIS W. CAMPBELL, M.A. M.D. L.R.C.P. LOND.

SUBSCRIPTION TWO DOLLARS PER ANNUM.

All communications and Exchanges must be addressed to the Editor, Drawer 56, Post office, Montreal.

MONTREAL, NOVEMBER, 1872.

## MONTREAL AS A CENTRE FOR MEDICAL EDUCATION.

Montreal, the metropolis and great manufacturing centre of the Dominion, has always been recognised as the chief seat of Medical Education for the British American Provinces. Its rapid growth and increased manufacturing interests have largely developed those means, which in the first instance gave to our city its medical reputation. To-day, therefore, it should be in the position of extending to all who come to it the fullest possible advantages

which are to be derived from the material which is so abundantly supplied. Other cities, pre-eminently Toronto, are putting forward their claims, and unless Montreal chooses to be guided by plain common sense, we hesitate not to assert that the numbers who yearly come hither for the purposes of Medical instruction will before long be very sensibly diminished. In making this statement, we do so advisedly, for within the last few years, but especially this fall, there has been very loud murmuring, and much disapproval expressed at the facilities afforded at the Montreal General Hospital for the purpose of Clinical instruction. Those who have thus expressed themselves have for several years seen this grievance gradually growing worse, till this winter it has become so conspicuous and so aggravating that in the interest of the students and in the interest of the city, as a place of Medical education, we feel called upon to take notice of it. We know that a portion of the profession of the city will probably misconstrue our motives and assert that we desire to find places on the staff of the Hospital for some members of the Faculty of the Medical School with which we are connected. We repudiate at once any such intention, and assert that the views we now enunciate have been held by us, and freely expressed upon every fitting occasion, during the past eight years. We feel, and our opinion has been arrived at after seeing the working of both methods, and a mature consideration of the subject, that it is contrary to the spirit of the age that Universities should in the smallest degree exercise control over clinical teaching. Having said so much by way of introduction let us proceed to the more practical part of our subject. The Montreal General Hospital—a noble institution—has supplied the clinical material, or the greater portion of it, which has educated a host of Medical men who are now scattered throughout the length and breadth of the Dominion. Twelve years ago, when we attended it for the last time as a student, the number of indoor patients was very considerably less than they are now, while as regards students we are not beyond the mark when we state that then there was fully forty to fifty less than this winter. Even at that time among those who were anxious to benefit themselves to the fullest possible extent, there was a feeling, often expressed, that from the over-crowding of the wards with students, much of the instruction which should have been obtainable was lost. Year after year this state of things has gradually been getting worse, till now it is a common thing to hear it expressed by some of the more diligent students, that the time they are

compelled to pass at the Hospital is, for the reason we have given, so much time wasted. The cause of this is so plain that some of the Committee of Management of the Hospital have had their attention drawn to the matter, and have suggested the proper remedy—an increase in the staff of attending Physicians. At the present moment the Hospital staff is composed of eight active or working members, and two of them attend for three months. The manner in which this duty is, and always has been performed is deserving of every praise; but as only two attend at one time, there are at present fully fifty students or more following each physician. This fact carries with it a force of argument that no additional words of ours can possibly strengthen, and proves the necessity which exists for an increase in the staff of Physicians. We hold the opinion, and it is shared by the majority of students themselves, that if fifty of them follow one physician around the wards of an Hospital they will derive but a *modicum* of the benefit which should be obtainable from even the ordinary material to be found in Hospitals. The matter is an important one in the interest of our city continuing to maintain its ascendancy in the matter of Medical education, and the truth of our remarks can be verified at any time by those who will take the trouble to visit the Institution.

#### PERSONAL.

On the 12th November, among other operations in the St. Patrick's Department of the Hotel Dieu Hospital, Dr. Hingston had a case of lithotomy, in a child of one year, wherein the stone was supposed to date from birth. The stone was hard, and was about the size of the shell of a pea-nut. It was extracted by means of a thin scoop of horn, so that there was no undue dilatation of the wound, a point of some importance.

Dr. Hingston recently removed the greater part of the lower jaw, and the whole of the tongue at its roots. The patient, a man of fifty, made a rapid recovery.

Dr. Powell, of Victoria, British Columbia, has been appointed Superintendent of Indian affairs in that Province. We congratulate our class-mate upon this recognition of his abilities.

Dr. J. H. Wright, son of Dr. H. H. Wright, of Toronto, has received the appointment of House Surgeon to the Victoria Park Hospital, London, England:

## Reviews.

**THE PHYSICIAN'S VISITING LIST FOR 1873.** Twenty second year of its Publication: Philadelphia, Lindsay & Blackiston: Montreal, Dawson, Brothers.

The kindness of the publishers has placed in our hands, this invaluable little work. We call it invaluable, and advisably so, for to many within our knowledge, it has repaid its cost a hundred times over, not to say anything of its great convenience, as a daily remembrancer of work. Those who have made use of it need no urging from us to induce them to again obtain it, but we advise those who have not seen it to order it without delay. It is compact, carried without the slightest inconvenience, and is arranged for from 25 to 100 patients weekly.

**OVARIAN TUMORS; THEIR PATHOLOGY, DIAGNOSIS AND TREATMENT, ESPÉCIAALLY OF OVARIO-TOMY.** By E. Randolph Peaslee, M.D., LL.D., Professor of Gynæcology in the Medical Department of Dartmouth College; attending Surgeon of the New York State Woman's Hospital; consulting Physician to the Stranger's Hospital: corresponding Fellow of the Obstetrical Society of Berlin, and of the Gynæcological Society of Boston; Honorary member of the Louisville Obstetrical Society; President of the New York Academy of Medicine, &c., &c., &c., with fifty-six illustrations on wood. New York, D. Appleton & Co., 551 Broadway, N. Y. Montreal, Dawson Bros.

This admirable treatise is divided into two parts, the first part treating of the normal anatomy, pathology and treatment of ovarian tumors, excepting ovariectomy, and beautifully illustrated with a number of original and well-executed drawings. The classification of ovarian tumors under two general heads, the solid and the cystic, presents the subject in a most simple and satisfactory form, and the subsequent grouping of these tumors is clear and scientific. In his differential diagnosis of abdominal tumors, Dr. Peaslee has handled his subject with masterly skill, and shown his thorough acquaintance with the literature of the day.

The second part of the work, which treats of ovariectomy, its history, statistics, indications, prognosis, operative methods and treatment is dealt with in the same original and able way that characterizes the first part of the work. The history of the operation is fairly and fully entered into, and the high honor of being the first ovariectomist is justly

accorded to Dr. McDowell, of Kentucky. With regard to the history of ovariectomy, while considerable diligence has been exercised in the collection of cases it is much to be regretted that more complete returns were not obtained. The names of several well-known operators have been omitted, among which is Dr. Burnhams, of Lowell, Mass. The returns of cases performed in Canada might very appropriately have found a place in this connection. The author's observations with regard to the selection of cases, and the proper time for their operation, commend themselves as reasonable and proper, and also accord with the opinion of such men as Dr. Keith, and Mr. Wills, whom, we think we may justly regard as the highest authorities on all matters connected with this operation. The prevalent opinion held a few years, against tapping as tending to diminish the chances of recoveries, is refuted by the latest statistics. Drs Keith and Wells both prefer to defer the operation as long as the patient's health will permit; resort to tapping in the meantime for the relief of urgent symptoms.

The importance of having the operation of ovariectomy performed in private houses or private hospitals, is forcibly dwelt upon, and commends itself to the judgment, as desirable in the treatment of all diseases. Sir J. Y. Simpson's late paper on "Hospitalism" conclusively shews that a smaller percentage of deaths occur in small Hospitals, than large ones. The mode of performing the operation and the after treatment recommended, are based upon sound physiological principles, and are such as have been followed by the greatest success. The preparatory treatment and arrangements for the operation are in accordance with latest established facts. The author devotes special attention to the subject of securing the pedicle, and arrives at the conclusion, that the ligature is more safe than the clamp. This conclusion although sustained by statistics does not accord with the practice of either Keith or Wells, as the former operator is now inclined to give preference to the actual cautery, and the latter adheres to his clamp. The treatment recommended after ovariectomy, especially in cases of unusual complications, is most thorough and well worthy of the attention of every operator. The last chapter of the work is devoted to the hygienic treatment of those who survive ovariectomy—attractive; while Dr. Peaslee's style is clear, and mode of treating his subject is eminently practical and complete. The work is gotten up in D. Appleton & Company's best style, and should be in the hands of every one who attempts to deal with ovarian tumors.

## Reports of Societies.

### MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

MEETING HELD NOVEMBER 2ND., 1872.

Dr. REDDY, Vice-President, occupied the chair. The attendance of members was small.

Dr. E. K. PATON was elected a member of the Society.

Dr. F. W. CAMPBELL gave notice for the introduction of a bye-law to create corresponding members of the Society.

Dr. GEORGE W. ROSS read a paper on Thoracic Aneurism. The patient had always enjoyed good health, till the spring of 1872. At one time, he had been intemperate. Never had had syphilis. Presented himself to Dr. Ross, on the 12th of last July, complaining of pain, which he said had began to attract notice about three months previously. It was described as being at times burning in character, while at others it was lancinating, getting much worse towards night, at times becoming agonizing, and preventing sleep. Resonance of the chest wall was clear throughout. Heart's sounds quite natural. No murmur to be heard either in front or behind. Striking the vertebræ gave no pain, and a diagnosis of intercostal neuralgia was made. A liniment of soap, opium and chloroform as well as fly blisters were used, and in about six weeks the patient had improved so completely, that he proposed to resume his work of a farm laborer. On the 3rd of September, the pain having returned, he was admitted into the Montreal General Hospital, and on the 15th of October, suddenly expired. A *post mortem* revealed an aneurism of the thoracic aorta, with a firm clot in the sac of the size of a goose egg, and erosion of three of the dorsal vertebræ.

After a brief discussion, and the thanks of the Society had been tendered to Dr. Ross, the meeting adjourned.

MEETING HELD NOVEMBER 16TH.

Dr. R. PALMER HOWARD, President, in the chair.

Drs. WILLIAM BURLAND and DUHAMEL were elected members of the Society.

Dr. TRENHOLME read a paper upon a case of abdominal tumor, (it will be found among our original communications.)

Dr. REDDY stated that he had seen the case, which Dr. Trenholme had apparently forgotten. He examined per vaginum, and studied the case closely,

but although he excluded ovarian disease, it was impossible for him to arrive at any definite opinion.

Dr. F. W. CAMPBELL said he saw the case several times in consultation with Dr. Trenholme. It was to him an exceedingly puzzling one. Although no positive diagnosis could be arrived at, it was clear to his mind that the proper treatment was to evacuate the contents of the cyst; that this was correct the subsequent history of the case proved. But why the cure did not follow the first tapping, as it did upon the second, was to him a little of a mystery.

Dr. REDDY said that tumors of the kidney were not quite so rare, as mentioned by Dr. Trenholme. Before coming to the meeting, he had looked up the subject, and found mention of several. One case was met by Grailey Hewett, another was the case of a little boy who had the disease for five years, and from whom a large quantity of fluid was taken. Spencer Wills operated upon a case, as did also another celebrity; altogether he had got records of six cases.

Dr. CRAIK wished to know if there was any evidence in the abdominal cavity of inflammatory action, showing that inflammation took place after the tapping. His object in asking was to ascertain if so irritating a fluid as the urine could be extravasated into the abdominal cavity without producing serious inflammation.

Dr. TRENHOLME, in answer to Dr. CRAIK, said there were no adhesions between the walls of the cyst and the abdomen. There could be no doubt but that some of the contents of the cyst were extravasated, as she complained of a burning sensation, radiating from the point of entrance of the trocar, over the whole abdomen. The amount of shock that followed was very great. In reply to Dr. F. W. CAMPBELL's remark as to why the first tapping did not effect the cure, which followed the second tapping, he stated that it was in all probability due to the fact that at the time the cyst was first evacuated, the secreting structure of the kidney had not been injured to an extent sufficient to prevent the rapid secretion of urine. That before the second operation had been performed, the organ performed its function so slowly as to allow the fluid to escape without pressing upon the valvular orifice of the ureter, which thus remained patent for the rest of her life.

Dr. HINGSTON mentioned as an example of the extreme difficulty in the diagnosis between ovarian disease and tumor of the kidney, a case which occurred in his practice some five years previously. The patient had been seen by a number of the Surgeons



of Montreal, not one of whom diagnosed tumor of the kidney. He began, as he thought, ovariectomy, but cut down on what proved to be a tumor of the kidney of enormous size. The patient died. Since then he had met with one or two cases, and remembering some of the prominent symptoms present in the fatal case, he was enabled to diagnose tumor of the kidney; still he admitted that the signs whereby to diagnose it were not very clear.

Dr. E. K. PATTON mentioned the case of a female child, twelve months old, under the care of Dr. Jackson of Quebec, who died from an abdominal tumor. From the age of the child, it was not suspected to have been ovarian, which the *post mortem* revealed it to be.

Dr. HOWARD inquired if it was malignant.

Dr. PATTON replied that he could not state, as the specimen was not examined microscopically.

Dr. HOWARD, (President,) stated that as regards the situation of the tumor in Dr. Trenholme's case, it was the usual site of renal tumors. The cause of the enlargement of the pelvis of the kidney was to him a good deal of a puzzle; it was in fact an anatomical puzzle. The most common cause was a renal calculus. An examination of the ureter proved that it was not thickened, so that any idea of tubercular disease had to be abandoned. The obvious cause was not ascertainable, but whether the *post mortem* had been sufficiently exhaustive to say that none existed, was for Drs. Trenholme and Kennedy to say. He then referred to the fact that the disease although not common was not exceedingly rare, specimens of renal tumors being found in all museums. He stated that some five years ago he had a case under his observation, whom in early life he had attended for renal calculus. He had lost sight of him for several years; when he returned there was a considerable tumor present. The early history enabled him to diagnose a tumor of the kidney. The cyst was enormous, and had produced abdominal dropsy from pressure on the veins. It was tapped, but the patient died.

Dr. TRENHOLME, in reply to Dr. Howard, stated there were no calculi, and that the ureter was pervious and healthy, and that in the diagrams given by Dr. Bight the tumors were generally somewhat lower in the abdomen than in this case, and did not press against the diaphragm without being at the same time extended low in the lumbar region.

Dr. CRAIK accounted for the origin of the tumor upon the theory that thickening of the mucus lining of the ureter prevented the escape of the urine, and that in this case the peculiar way in which the sack

was formed rendered further escape of fluid, while the pressure continued, impossible.

Dr. FENWICK thought that if due to pressure of abdominal organs, the ureter as well as the pelvis of the kidney would have been dilated.

The President conveyed the thanks of the Society to Dr. Trenholme, for his paper, which he considered one of the most interesting which had been brought before the Society for some time.

Dr. BELL then read a paper on imperforate hymen, which will be found among our original communications,

Dr. TRENHOLME said it would have been interesting had Dr. Bell extended his inquiries, and ascertained if the husband had been having sexual intercourse through the urethra.

Dr. HINGSTON said that was probable, as Dr. Bell had said the urethra was dilated to an extent capable of admitting his little finger.

Dr. FENWICK stated that he had had a case under his care, where there was obliteration of the vagina from childbirth, and that the urethra was sufficiently large to admit the index finger. The husband had been having connection for months through the urethra, and did not know it. She came under his (Dr. Fenwick's) care, suffering from incontinence of urine, due to this fact.

The Society voted its thanks to Dr. Bell for his interesting paper.

A good deal of business of purely local interest was then transacted, and the Society adjourned.

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#### BIRTHS.

On the 20th November, at 686 Dorchester street, Montreal, the wife of Dr. Geo. Baynes, of a son.

#### MARRIAGES.

At the Parish Church of Rosneath, on the 22d. October, by the Rev. R. H. Story, minister of the parish, assisted by the Rev. William Scott Moncreiff, of St. Thomas' Church, Edinburgh, David Scott Moncreiff, writer to the Signet, Edinburgh, to Margaret Fisher, eldest daughter of George William Campbell, Esq., M.D., Professor of Surgery McGill College, Montreal, Canada.

At George Square, Edinburgh, on the 29th Oct., by the Rev. Charles J. Brown, D.D., Moderator of the Free Church General Assembly, Alexander Russell Simpson, M.D., Professor of Midwifery, &c., in the University of Edinburgh, to Margaret Stewart, daughter of George F. Barbour, Esq., of Bonskeid, Perthshire.

#### DIED.

On November 25th, Maria, widow of the late William Wood Squire, M.D., and daughter of the late Joseph Newman Hall.

In this city, on the 26th instant, Emelia Margaret, twin daughter of Francis Rourk, M.D., aged 14 months.