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YEO'S MIXTURE IN TYPHOID FEVER—REPORT
OF TWENTY-TWO CASES.*

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The cases upon which this paper is based were under the treatment of Dr. Wilkins, Physician to the Montreal General Hospital. This method was followed out at his suggestion, after reading the article in *The American Journal of Medical Sciences*, by Dr. Yeo, and I am indebted to him for kind permission to make free use of these cases, over which I had charge as his assistant.

The total number of cases coming under observation was twenty-four, but of these only twenty-two are available for notes, being the number in which the treatment was applied throughout the entire course of the disease.

Epidemics of typhoid fever vary so much from season to season, both as regards their virulency and centralization on special systems, that it would be unreasonable to draw any definite conclusions from so few cases; but the number is nevertheless sufficiently large to allow of a brief *critique* of the principles set forth, basing the remarks upon an experience derived from twenty-two cases.

For the benefit of those who may not be conversant with the subject I will try and synopsise as briefly as possible

* Read before the Montreal Clinical Society, February 16th, 1895.

the main ideas embodied in Dr. Yeo's article of June last and more fully discussed in his recent "Manual of Treatment." First of all, then, as to his mixture, which he orders to be prepared as follows: "Into a twelve-ounce bottle put thirty grains of powdered potassium chlorate, and pour on this sixty minims of strong hydrochloric acid; a greenish-yellow gas is at once liberated, close the bottle with a cork and agitate the mixture gently until the bottle is filled with the gas; then pour water into the bottle little by little, closing the bottle and well shaking at each addition, until the bottle is filled."

Concerning this he says: "We have in this solution several antiseptic agents all in a *state of solution* and readily absorbable, which is one of its great merits over antiseptics not in solution; free chlorine, hydrochloric acid, potassium chlorate, and probably one or two by-products. In twelve ounces of this solution I cause twenty-four to thirty-six grains of quinine to be dissolved, and some syrup of orange peel added to make it more agreeable to take; and of this to adults I order one ounce to be given every two, three or four hours, according to the severity of the case."

A consideration of the principal ingredients contained in this compound will give us an insight into two of the principles which the author recommends, and the first of these is:

(I.) **INTESTINAL ANTISEPSIS** by means of chlorine, or more correctly, a derivative euchlorine, the idea of its application in typhoid fever having been suggested to him as a result of favourable observations regarding its value as an antiseptic in certain "grave forms of throat ulceration occurring in cases of scarlatina maligna."

Dr. Yeo pleads for the adoption of this principle by saying that "It is well known that in the presence of putrefactive processes bacillary action is remarkably stimulated, and I am not aware that it has hitherto been pointed out that the intestinal lesions of typhoid fever offer a remarkable illustration of this fact. The glandular inflammation,

infiltration and ulceration observed in the walls of the ileum begin *just where the intestinal contents begin to undergo putrefactive decomposition*, and they become more and more intense as we descend to the ileo-cæcal valve. * * * *

If we can restrain *early in the disease* these putrefactive changes in the intestine, we may confidently hope to restrain the morbid activity of the typhoid bacillus and thus we see how the production of *intestinal antiseptis* becomes an urgent and early indication in the treatment of these cases."

But intestinal antiseptis is to be maintained not alone by the administration of euchlorine; Dr. Yeo recommends in addition several other very important measures:

1. A calomel or other purge in the initial stage of the fever (if diarrhœa does not exist).

2. Washing out the large intestine twice daily with naphtholated water.

3. The adoption of "a method of feeding which shall by no possibility leave a bulky residue of unabsorbed material to undergo putrefactive changes in the lower part of the small intestine, and by its presence *there* excite and maintain diarrhœa and provoke an extension of the ulcerative and inflammatory changes dependent on bacillary infection of the intestinal glands."

4. The "administration of food in a dilute liquid form—food *that remains liquid in the body as well as outside it.*"

5. The giving of "whatever intestinal antiseptic you may be using at the same time as the food, so as to keep it from putrefactive decomposition."

(II.) GENERAL ANTISEPTIS by means of quinine is the second principle, on the supposition that this drug acts as an "anti-toxic remedy," neutralizing the products of bacillary growth when once absorbed into the system, and producing "an anti-pyretic effect, due to a *general* antagonizing influence on the pyrogenic poisons in the tissues, rather than from any immediate or direct effect on the heat regulating mechanism"—an idea which is supported by many leading

therapeutists, but best expressed by Mitchell Bruce in his "Manual of Materia Medica," p. 596, as follows: "We may therefore conclude that the effect of quinine in the body is to check metabolism by interfering with the oxydation of protoplasm generally, with oxygenation, and with the associated action of ferments. Thus the fall of temperature produced by quinine is due to diminished production of heat in the body, not to increased loss of heat; it is effected through the tissues, not through the heat-regulating centre; and the fever causing processes themselves (probably allied to fermentations) are also controlled by the drug, which effects their organic causes, whether living organisms or complex chemical substances."

(III.) FEEDING constitutes a third and important part in Yeo's plan of treatment. "This intestinal antiseptis," he says, "cannot be carried out without great consideration, care and observation in the matter of *feeding* the patient.

* * * We must note carefully what digestive and absorptive activity exists in each individual case. In many this will be found to be *extremely small*. * * * It is the popular *mania* for feeding, which induces us to give food when it simply passes as an irritating, decomposing substance along the intestinal tube. Remember that it is useless and injurious in these cases to give food that is not absorbed. Estimate accurately the absorptive capacity of the patient. If he cannot absorb milk at all give him some other food. If he cannot absorb four pints in the twenty-four hours give him two, and if he cannot absorb two pints give him one, and if he cannot absorb more than one-half a pint give him one-half a pint.

* * * Give all food *very dilute*; milk should be diluted with twice its bulk of water. We wish for antiseptic and eliminative purposes to give as much pure water as the patient will drink. Give it then as a diluent of his food.

* * * I am not suggesting that milk should not be used in a diluted form whenever it is found to be

well tolerated and freely absorbed, but I would urge the necessity of exchanging it for other food, when it is seen that much solid though finely reduced casien is passing in the motions.

* * * I have again and again seen milk break down utterly as a food for typhoid patients. In some cases I have seen it vomited as a firm cheesy mass soon after it has been taken into the stomach." Of this we will speak later on, believing that in at least some of the cases mentioned the mixture and not the milk was at fault.

(IV.) SYMPTOMATIC TREATMENT—Under this heading one or two points may be briefly dwelt on:

(a.) *Pyrexia*—He objects to the use of anti-pyretics, but recommends phenacetin grs. v, when "hyperpyrexia is for the moment the all-important symptom of the disease."

(b.) *Heart Failure*—Regarding this he says: "As to the use of alcoholic stimulants, I believe the general tendency is to give them too early and in too large quantities

* * * We have too much neglected those excellent cardiac stimulants, tea and coffee, in the treatment of fevers."

(V.) EARLY APPLICATION—"We must not expect," he remarks, "that success will uniformly attend the application of the method I have been advocating, *i. e.*, an antitoxic or antiseptic method, unless we are able to apply it *early* in the disease. Every day, every hour that is lost in allowing the products of the infective microbes to be diffused widely through the system will tend to lessen the efficacy and minimize the effects of our medicinal antagonistics."

It will be seen from the above synopsis, which must necessarily be somewhat disconnected and imperfect, that Dr. Yeo's treatment for the most part consists in the grouping together of a number of principles which have been and are more or less widely known and practiced by the profession. Thus, for instance, as far back as 1862, Murchison in his work on fevers makes the following comments regarding the use of quinine in typhoid fever: "Quinine

in large doses has been found equally inefficacious in enteric as in typhus. At the same time, in cases where the disease has presented a remittent character, I have frequently observed great abatement of the febrile symptoms follow its administration in doses of one or two grains frequently repeated." And again in another place he says: "Although I have never known enteric fever cut short by quinine and have found it in large doses as useless and injurious as in typhus, I have repeatedly observed the febrile exacerbations reduced in severity, the appetite improved and the strength increased under the use of the mineral acids and small doses of quinine, which may be prescribed as follows for an adult:

℞.—Ac. sulph. dil.
 Ac. hydroclor. dil. - - aa mms. xv. xxx.
 Quin. disulph. - - - gr ¼—gr i.
 Syr. aurantii - - - ʒp.
 Aq. carui *ad* - - - ʒi.

Fiat. haust. ʒi quæquæ tertia vel quarta hora.

So, too, some of the other ideas embodied in Dr. Yeo's paper are to be found in this same edition of Murchison's work. For example, he remarks that "Theine and caffeine, the active principles of tea and coffee, are also well worthy of trial, particularly in cases where there is much stupor," and that "elimination is to be encouraged by maintaining the action of the kidneys and of the skin."

Intestinal antiseptics, irrigation of the large bowel and many of the ideas on feeding are not original with Dr. Yeo. The merit of his treatment consists in the skilful employment of the best methods, no doubt after much thought and extensive clinical experience.

Our method of following the treatment at the General Hospital was as follows: On the admission of a patient with the disease well defined, or whose symptoms strongly pointed to typhoid fever without the diagnostic signs being actually present, we at once put him upon the mixture, generally beginning with the full amount, one ounce every two hours, and reducing gradually as the fever declined.

Milk was relied on as the chief article of diet, but wherever it seemed to disagree, and indeed in some cases where the patient expressed a dislike to it as food, beef tea, chicken broth, albumen water and other fluid nourishments were alternated or substituted altogether.

Three pints of milk was allowed to each patient on entrance, the quantity being varied later on as was seen necessary.

Dilution with water, lime water or soda water was practiced in degree from one-third to twice the bulk of milk, as recommended by Dr. Yeo. Some patients found it difficult to take such large quantities of fluid; at any rate I think it better to do as we did for a time—dilute the milk moderately and encourage the patients to drink freely of water at other times.

All food was divided into stated quantities and given at stated times, so that in so far as possible the administration of the food and medicine coincided.

At first we tried giving the medicine *in* the milk, but this had to be abandoned later on, for it was found that on the addition of the mixture the contained hydrochloric acid produced curdling in a very short time, with the result that the patients either objected to the milk entirely or vomited it shortly after drinking. After this the method was adopted of dividing the quantity of milk which was due into two portions and making the patients take a half before and after the administration of the medicine. This succeeded much better, although even then one or two suffered from gastric disturbance. These are details on paper, but important matters in a large ward.

The medicine to some became extremely monotonous, if I may use the expression, and it certainly did have a tendency to upset the patients' stomachs.

We did not in any case, for several reasons, carry out the plan of washing out the large intestine, believing rest and quietness for the patient, especially late in the disease, to be more beneficial than any good which might accrue from this procedure.

Constipation marked the majority of cases, as is generally true in Montreal, and we kept the rectum emptied by enemata of glycerine, soap-suds, or soap-suds with turpentine, where there was a tendency to flatulency.

We had no occasion to use an antipyretic. In one or two cases where nervous symptoms were present spongings at 80° F. for twenty minutes were employed, and like Murchison we "observed marked relief from their use."

In several instances we gave tea and coffee to the patients with benefit. Conservatism in regard to the too early use of alcohol is the rule at the General Hospital, but stimulation was found necessary sooner or later in eight of the cases. In only one instance, however, did the amount exceed six ounces per diem.

Such, then, was our line of treatment, it differed slightly in detail, but in the main carried out Dr. Yeo's therapeutic idea.

The benefits claimed for this method in Dr. Yeo's own words are as follows, and under the different headings I will discuss briefly the effect of the treatment:

1. "There is a remarkable cleaning of the tongue and mouth. The aspect of the tongue in cases so treated is frequently unlike the usual tongue of enteric fever."

Our experience does not warrant the word, remarkable, for in the majority of cases in which the tongue was furred at the time of admission my bedside notes show that it continued so pretty much throughout the whole course of the fever. We continually observed, however, that the lips and tongues remained moist and the gums free from sordes, but even this was more attributable to the careful cleansing of the parts by the nurses than to any direct effect of the treatment.

2. "The foul putrefactive odour of the fæces is rapidly removed if this remedy be given sufficiently often and in sufficient quantity, for this fluid and perfectly soluble antiseptic certainly reaches and passes through the small intestine, as the nurses constantly report the odour of chlorine in the alvine evacuations."

In the general Hospital cases the effect of the mixture on the alimentary excreta was also most marked. A careful examination of the stools showed that in the great majority of cases the odour was *much diminished*; in not a few there was absolutely *no odour*; in a limited number the stools seemed to be entirely unaffected by the treatment. Contrary to Dr. Yeo's experience in only one instance could the smell of chlorine be detected; but in the ward where the treatment by baths and this method were being carried out at the same time the effect of the antiseptic in this direction was very noticeable.

It seems hardly possible that the administration of a drug, which can bring about the results stated above, could be productive of anything but good.

It is more than likely that typhoid fever is dependent upon the absorption into the system of not one, but several toxic substances. It may be that the ptomaines of the typhoid bacilli are the most important, and no doubt are; but the septic temperature of the third and fourth weeks undoubtedly shows the handiwork of the pus cocci, and evidence is not wanting that the putrefying fæces themselves may throw back toxic substances into the system.

Again, the typhoid bacilli must at least depend to a small extent for their development upon the fæcal decomposition, or in other words, the fæcal decomposition favours their growth, and a prevention of this means a restriction of their growth and power of producing toxic substances. For the same reasons the ulcers when once formed are scientifically, and no doubt beneficially bathed, by the antiseptic; and if the third factor were true products accruing in this way would be reduced to a minimum. One is at least rational in theory in carrying out intestinal antiseptics, and many are not wanting who claim for it the best of results at the bedside.

Apart from other considerations one would think that the disinfection of the stools and the prevention of the

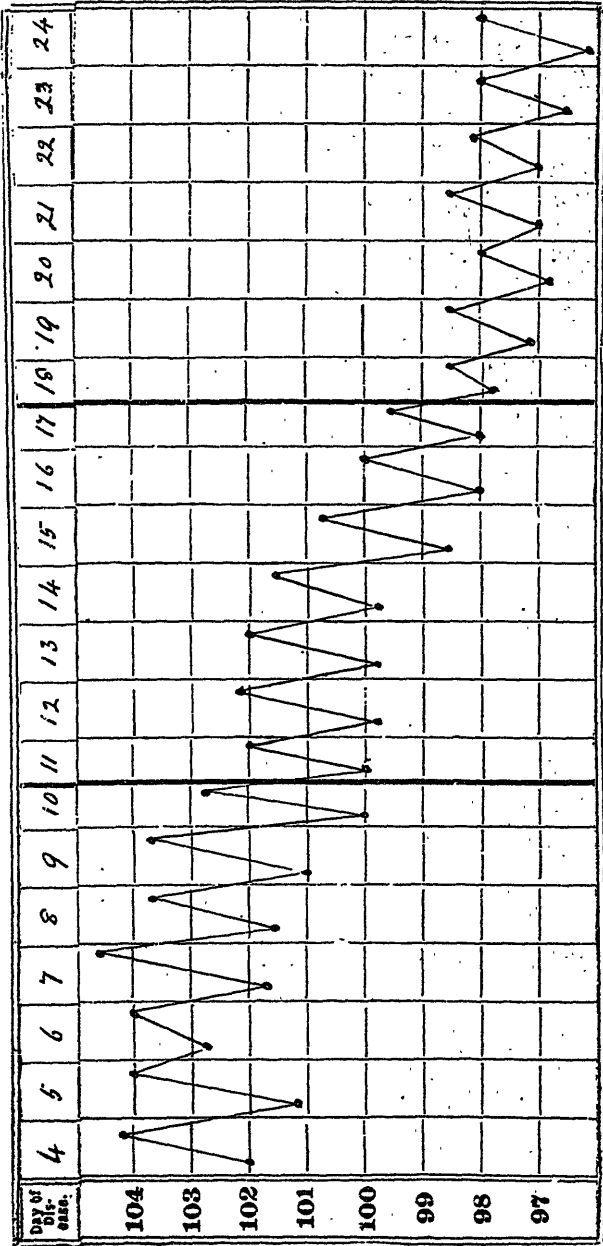


CHART I.*

Showing "a continuously favourable effect on the pyrexia."

* Charts shown are "maximum" charts, i e., record the highest and lowest temperature during the twenty-four hours, as seen by the two-hour charts.

accumulation of putrid gases would lessen the tendency to distention, tympanites, etc. For the reason again that epidemics vary so much as regards their location in special parts, positive conclusions are not possible, but I present a summary of the cases as regards these points, which is on the whole very favourable.

1. Cases with no distention on admittance in which none developed.....	11
2. Cases with distention on admittance which—	
(a) Improved	5
(b) Remained unaffected.....	5
(c) Became worse.....	1
	— 11
	22

Under this heading it may be stated that three of the twenty-two cases had well marked hæmorrhages—a somewhat high percentage. It may be, as was suggested, that the chlorine has some effect in favouring hæmorrhage in eating away the sloughs and exposing the small vessels of the ulcers.

Perforation was the cause of death in one of the two fatal cases. This patient, however, did not enter the hospital until the twenty-second day of his disease.

3. "Another important effect of this treatment is a sustained depression of the febrile temperature—a continuously favourable effect on the pyrexia. The pyrogenic toxine seems to be under control, or continuously neutralized or excreted."

The effect of the remedies on the course of the fever varied greatly. In some instances we certainly noticed the "sustained depression of the febrile temperature" spoken of; while in others the fever ran its usual cycle quite uninfluenced by the treatment.

I show the charts of two cases, both of which came under early observation, to illustrate how diverse were the results in different cases. Chart I. shows "a continuously favourable effect on the pyrexia," and is but a fair type of several of the fever records. On the other hand, a glance at Chart II. will show that not only was the fever

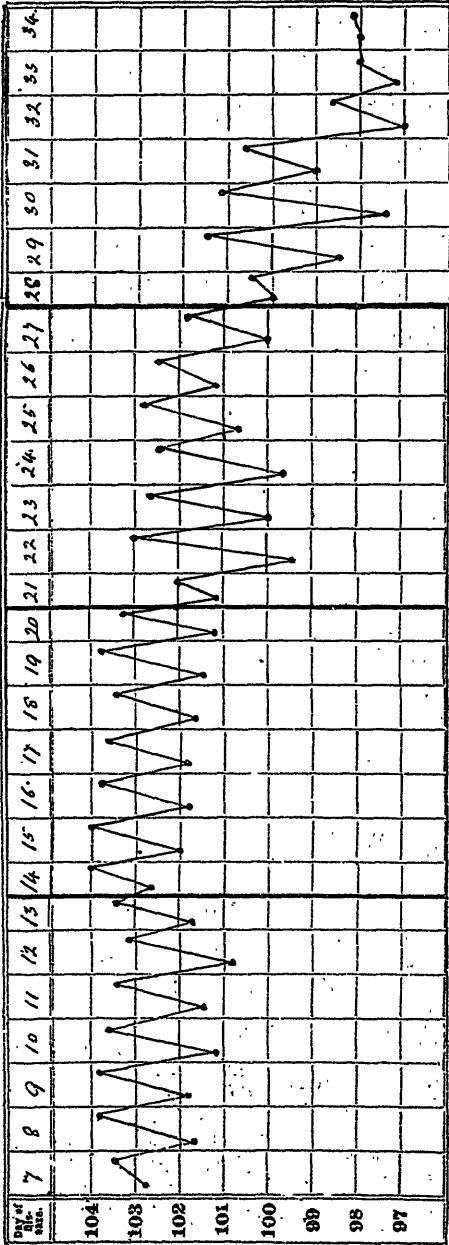


CHART II.

A case in which the fever ran its course uncontrolled by the treatment.

not cut short, but that the continued pyrexia of the second period was continued on a full week longer as compared with the classic typhoid chart.

The third chart, which I present for your inspection, is that of a young man of twenty-one, who began this treatment on the fourteenth day of his illness, and is interesting as showing the primary rise in temperature, which Dr. Yeo pointed out as occurring during the first twenty-four to forty-eight hours after the administration of these remedies; and which he says "appears to indicate that the anti-pyretic effect is due to a *general* antagonizing influence on the tissues rather than from any immediate or direct effect on the heat regulating mechanism." The chart also records a rapid favorable effect of the remedies on the temperature; a secondary rise of temperature on the medicine being lessened in quantity; and a final drop to normal on the remedy being increased to the full amount.

4. "In certain cases, especially in young subjects and if the treatment has been begun quite early in the cases, the average course of the fever appears to be notably shortened."

In this connection also the cases differed widely: Chart I. is that of a boy of fifteen, who came under treatment on the fourth day of his illness—in every way a favorable case with a favorable result. In another lad of thirteen, seen within a week of the commencement of his illness, the fever terminated on the twenty-fifth. On the other hand again, Chart II. is that of a youth, who likewise came under early observation—seventh day—the result being unfavorable.

Arbitrarily taking the eight day as a period, before which the cases may be said to have been seen early, both as regards the onset and the changes occurring in the intestines, I made an analysis and comparison of the average number of days of fever of the cases coming under observation, before and after this period, with the following result: I found that in the thirteen cases coming

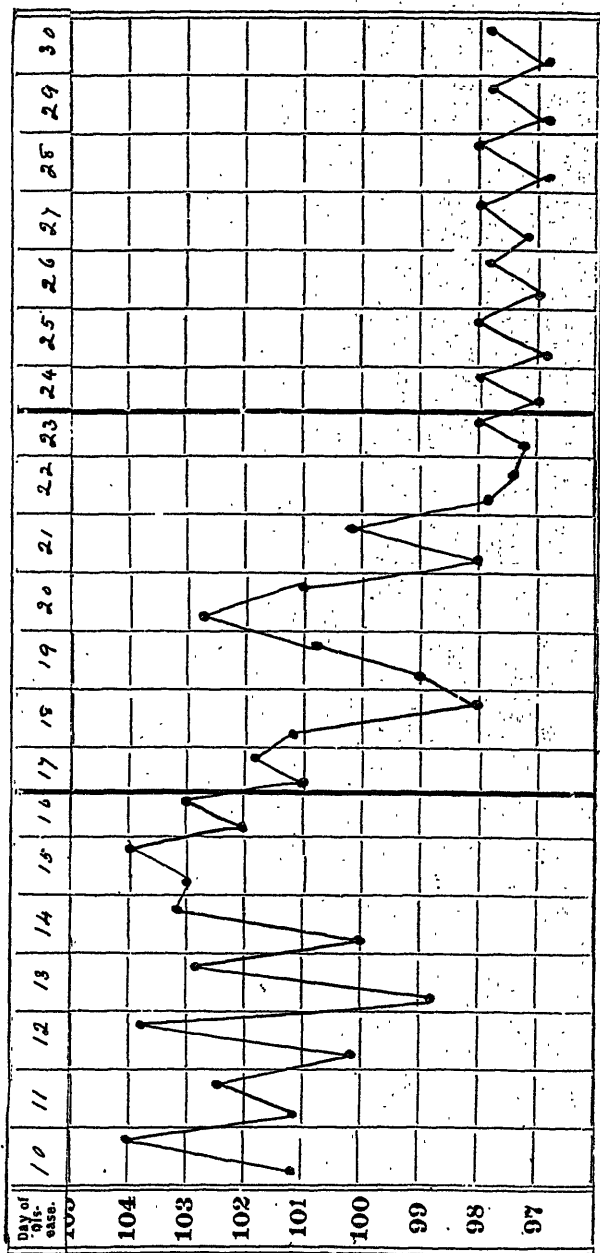


CHART III.

Treatment begun on fourteenth day. Chart shows primary rise (fifteenth day) and effect of a reduction and subsequent increase of the remedy.

under treatment before the eighth day, the average number of days of fever was a little over twenty-five, while the average for the nine cases coming after this period was something over thirty-four—a difference of nine days in favour of the early cases.

This was certainly a beneficial effect, but the exponents of almost every method of treatment claim, with truth, better results for their remedies when applied early in the disease. I have seen charts quite as favorable as No. 1, of cases sent *early* to bed with simply a carefully regulated diet and good nursing.

V. "There is another very striking effect of this treatment, and that is, that the patients seem subjectively so much less disturbed by the fever poison. Their physical strength and intellectual clearness are far better maintained than by any other method of treatment with which I am acquainted. In many cases the nervous system shows none of the signs of febrile intoxication which we have been accustomed to see."

It may be that the toxins of the disease played lightly with the nervous system in this series of cases; but certain it is that few of the signs of "febrile intoxication" presented themselves. The mind in the great majority of cases was clear and bright throughout the entire course of the disease. In only three of the cases without nervous symptoms on entrance, did slight delirium and tremor develop, and of these, two were affected only after complications had set in. On the other hand in one case, which came in with the most pronounced nervous symptoms, the treatment seemed to have a most beneficial effect. The patients for the most part rested quietly during the day and slept well at night.

Nor did the cases present that extreme degree of emaciation and pallor, which is generally present late in the disease. Some of them retained colour all through, and they compared more than favorably with cases under the bath treatment in the same ward.

6. " Finally their convalescence is more rapid and complete, and troublesome sequelæ, so far as my experience has extended, are unknown."

Although it was commonly remarked, and in special cases seemed very apparent, it would be difficult to show certainly that these patients convalesced more rapidly than others under different treatments, and with this I will dismiss this point.

Complications and sequelæ were, however, not unknown to us. Of the two fatal cases, one (though hardly a fair case to judge from) as has been stated, died of perforation, the other of a frank pneumonia, involving the right lower lobe, acquired after the temperature had declined to the normal line. Another case dragged on through two relapses, and had later on several peculiar chills which could not be explained by repeated examinations of the urine or enquiry into the different systems. No doubt they were due to some obscure septic condition. Thrombosis of the veins of the legs occurred in one instance.

HYPERTROPHY OF THE HEART

By JAMES STEWART, M.D.

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I have been assigned the duty of dealing with the causes of cardiac hypertrophy other than those due to valvular disease. Perhaps it would have been better if the term enlargement of the heart had been used instead of hypertrophy, for the reason that a pure and simple hypertrophy is rarely met with. I will confine my remarks chiefly to hypertrophy, but it will be necessary to refer frequently to the almost constant presence of dilatation.

The causes of cardiac hypertrophy have been recently attracting great attention, but not more than the condition merits on account of its great practical importance. No doubt a great deal can be done to stay the progress of an advancing hypertrophy if the cause or causes at work are clearly recognized.

A discovery of the causes is essential to judicious therapeutics.

I can only deal with the more important cardiac hypertrophies, and even those must be dealt with briefly.

The principal causes of cardiac hypertrophy other than disease of the valves, of the myocardium and of adherent pericardium can be divided for the sake of convenience as follows :

1. Organic changes in the arterial system, including obsolescence of the capillaries, and also congenital narrowing of the arteries.
2. The overfilling of the circulation.
3. The circulation in the blood of either foreign substances, or an excess of substances which in small quantities is a normal state.

* Being an introduction to a discussion on Idiopathic Cardiac Hypertrophy read before the Montreal Medico-Chirurgical Society, February 22nd, 1895.

4. Causes that act in a manner still unknown on the general or cardiac nervous system.

1. *Arterio-Sclerosis*—This is one of the most frequent causes of cardiac hypertrophy and within the past few years has attracted great attention. It is, as is well known, a frequent condition after the fiftieth year, but it is not by any means a constant change in the physically degenerative period of life. It is not uncommon to often find the arteries of aged people free from any such change. Bamberger mentions that on several occasions he has found the arteries free from sclerotic changes as late as the ninetyeth year. Then there is the famous case recorded by Harvey where sound vessels were found in a man at the very advanced age of 153 years.

Although it is uncommon to meet with marked sclerosis under the thirtieth year, it still occurs sufficiently frequently to make it matter of great clinical interest and importance.

The most important form of arterio-sclerosis is that which occurs as a diffuse process, in men from the thirtieth to the fifty-fifth year.

Councilman, at the meeting of the Association of American Physicians in 1891, read a valuable paper on the connection between arterial disease and tissue changes. His observations were founded on the examination of forty-one cases which had been autopsied at the Johns Hopkins Hospital. He divided arterio-sclerotic changes into three different groups—the nodular, senile endarteritis and the diffuse arterio-sclerosis. All these varieties are followed at times by hypertrophy of the heart.

In the nodular form the changes are limited to the aorta and large arteries. The aorta is covered here and there, especially at its origin, with elevated patches, cartilaginous or calcified in appearance. Otherwise the lumen of the vessel presents a smooth aspect.

In this nodular form of arterio-sclerosis hypertrophy of the heart is very common. In advanced cases it is to a great or less extent almost constant, the loss of elasticity

in the vessels throwing more work on the heart. When the heart increases in size it in its turn tends to increase the arterial changes, so that we have the one condition keeping up the other, a morbid circle being formed.

In the typical senile endarteritis, the aorta and its larger branches are converted into almost rigid calcareous tubes. The arteries are irregularly dilated and lengthened. Cardiac hypertrophy is not as constant a result of the senile endarteritis as it is of the other varieties. This is in a great measure due to the obsolescence of so many of the smaller arterial branches as people grow older. It is brought about by the loss of the elasticity in the arteries, so that the blood flow in the capillaries from being continuous becomes intermittent and in many areas finally ceases.

No doubt hypertrophy of the heart in a certain sense must of necessity occur when the vessels have to a great extent lost their elasticity, but owing to the cutting off of capillary areas this hypertrophy is more relative than absolute.

“The changes in the arteries due to age proceed slowly, imperceptibly, and so far as the individual himself is concerned unconsciously. If the heart responds normally to the calls for extra exertion demanded of it, the individual gradually descends into the vale of years quite unconsciously whether he has a heart or not. If this knowledge is forced upon him, trouble is not far off.”—Balfour (*The Senile Heart.*)

The diffuse form of arterio-sclerosis is in many respects the most important; here the arterial changes are widespread, affecting the whole arterial system to a greater or less extent. More than half of Councilman's cases were examples of the diffuse varieties, the youngest being a negro aged twenty-three, the oldest was a man aged sixty. The great majority of cases ranged in age between forty and fifty-five. Hypertrophy was present in every case, in some it reached an extreme degree.

Myocardial changes were found to be frequent, their ex-

tent depending on the degree of involvement of the coronary arteries in the sclerotic process. Dilatation of the heart is nearly always a constant accompaniment of the diffuse sclerosis of the arteries. In fact, in all varieties of sclerotic arteries the heart is not only hypertrophied, but also dilated. Cohnheim has said that the great majority of all idiopathic cardiac hypertrophies are eccentric and that non-eccentric hypertrophy has chiefly a theoretic interest. The dilatation in these cases may be so excessive as to give rise to leaking of the valves.

Clinically there is a difference between the diffuse arterio-sclerosis and the senile endarteritis, the former being characterized by the high arterial pressure, a condition which is not present in the latter, at any rate, when pure and simple. If however, the kidneys have undergone degenerative changes the arterial pressure will be increased.

The difference in the two states is chiefly accounted for by the slowness of onset in the senile disease as compared with the quicker process in the diffuse form. In the former the atrophy of tissue is also greater.

The chief cause of arterial degeneration in advanced life is the natural decay of tissues. In the diffuse form the primary event is a degeneration of the media of the large and small arteries. As to how this is brought about opinions differ. There can be no question that the resisting power of the arterial tissues varies much in different persons. In many people they are the weakest spot—the *locus minoris resistentie*. There is abundant proof that this proneness to early decay is frequently hereditary. As to the exciting causes of early decay the following may be mentioned, over-eating, the constant use of alcohol, especially beer, excessive smoking, hard manual labour, athleticism, poisoning by lead or mercury, retention of uric acid (so-called gouty arteritis), the toxins of the various infectious diseases, etc.

In a recent paper in the *Journal of Pathology and Bac-*

teriology Hollis suggests that the entry of various micro-organisms played a leading part in inducing atheromatous changes.

I will first say a few words in regard to the abuse of alcohol in inducing hypertrophy of the heart secondarily through producing arterio-sclerosis and primarily without any arterial change whatever. In Germany, where beer is the favourite beverage, what is commonly known as the Munich beer-heart is very common. It is the form of heart lesion in more than 55.3 per cent. of all heart cases. It may exist with or without any arterio-sclerosis. In the great majority of cases, according to Mohr, it exists independently of any arterial changes. The fact that in countries where stronger alcoholic drinks are consumed than in Germany, renders it highly probable that the cardiac hypertrophy from the use of large quantities of beer is due, more to the filling of the vessels with fluid than from any direct action of the alcohol itself. The quantities consumed daily by every steady beer drinker in Germany amounts to three or four quarts—five, six and even seven quarts is the daily allowance of not a few.

“Four quarts of beer contains about eight ounces of hydrocarbons in solution, and therefore capable of complete absorption into the circulation.”—Strunpell.

It is therefore easy to understand how the heart is overburdened, especially when one considers that obesity is present as a rule in those who use beer so freely. In some cases it would seem that alcohol has a direct action in causing increased pressure in the vessels. Even allowing that alcohol may have no direct influence in bringing about the hypertrophy of the heart, it no doubt promotes the degenerative changes in the heart muscle and cardiac nerves, which at least render the heart's action inadequate and the circulation imperfect.

The consumption of excessive quantities is generally found in those who eat to excess and who are engaged in severe toil—all causes which tend to induce cardiac hyper-

trophy. In indolent people we have obesity which is in some respects as injurious as excessive work.

The consumption of large quantities of food and beer gives rise also to a hyperamia of the intestinal vessels, which greatly increases the pressure in the arteries. It is generally allowed that strong tea, coffee and tobacco have a direct action in causing increased pressure in the arterial system. They are all promoting causes of the cardiac changes. Seldom do we find any one prominent. Practically we nearly always find over-eating, drinking, smoking, the excessive use of tea or coffee, together. Nicotine in the lower animals causes a great fall of blood pressure, but from this we are not to conclude that the continuous use has not an opposite action on man, as has been done.

The course of this hypertrophy varies considerably. In the great majority of cases it is found that the increased power is sufficient for a lengthened period to carry on the circulation compatible with a fair degree of health, but in not a few cases, especially in excessive beer consumers, an acute heart failure sets in, which rapidly proves fatal; this often happens without any degenerative changes in the heart muscles. Bauer has reported a number of cases where heart failure has set in a very short time after the hypertrophy developed and in which fatal result followed—a veritable heart paralysis, as he calls it. In the majority of cases if the cause is not removed gradual degenerative changes go on in the heart muscle, which finally lead to general dropsy.

Another important cause of cardiac hypertrophy is over-work, leading to strain of the heart muscle. Both ventricles are usually involved, and dilatation and hypertrophy are always found together. It is met with in those whose work entails severe muscular efforts. On superficial examination such patients usually present a very healthy appearance. On physical examination, however, the chest is found to be barrel-shaped, and the second sound, both aortic and pulmonic is accentuated. It has been met with

in soldiers, especially during active service in the field. DaCosta, Frantzel and many others have contributed valuable papers on this particular form of heart strain. It does not differ, however, in any respect from that met with from other forms of over-work.

In a recent paper on cycling, B. Wood Richardson points out that the ultimate action of excessive cycling is to increase the size of the heart, to render it irritable and hypersensitive to motion, the cycling acting upon it like a stimulant. The over-development of the heart under the continued and extreme over-action affects in turn the resilience, modifies the natural blood pressure, and favours degenerative structural changes in the organs of the body generally. Every medical man here must, I think, have met with instances of cardiac hypertrophy in athletes. There can be no doubt, that in such a violent game as lacrosse this condition develops. Cardiac hypertrophy from over-work may be recovered from, or it may go on to progressive heart failure. It develops more rapidly and more often affects those who at the same time use alcohol in any form to excess.

It is easy to understand how severe muscular efforts bring about hypertrophy of both ventricles.

Very rare causes of cardiac hypertrophy are congenital narrowing of the arteries and general dilatation of the blood vessels. The former is, according to some, far from rare, and it is held that in many cases of enlargement of the heart from over-exertion the predisposing cause is congenitally narrow vessels.

In severe cases of lead poisoning cardiac hypertrophy is very commonly met with, due mainly to the parenchymatous and interstitial changes in the kidneys and arterial sclerosis. These arterial and nephritic changes are very constant phenomena of severe lead poisoning.

The explanation usually given of the action of lead on the kidneys and arteries is that it induces gout. Sir William Roberts, however, believes that lead does not in-

duce gout. He considers that the gouty diathesis and lead poisoning, while differing in all other respects, have one tendency or vice in common, viz, the tendency to uratisis. However the facts may be explained there can be no doubt about the influence of lead in bringing about sclerotic changes in the kidneys and arteries and thus leading to hypertrophy. These changes, next to the encephopathy, constitute the most serious effects of lead poisoning, effects which if their cause is not early recognized will infallibly lead to irretrievable mischief.

Cardiac hypertrophy is the most constant change in the heart in gouty subjects. It is nearly always present, differing in degree according to its intensity and age of the patient. It is in some cases combined with dilatation and myocardial changes, especially fatty degeneration. It is caused by the widespread arterial and kidney changes so common in gouty subjects. In forty-nine cases examined by Dr. Norman Moore the average weight of the heart was 16½ ounces. Gout may cause hypertrophy without first bringing about arterial organic changes. In this connection it will be convenient to discuss the cardiac hypertrophy which is so frequently found in cases of sub-acute and chronic Bright's disease. The variety of Bright's disease which is most frequently attended by cardiac hypertrophy, is the interstitial. For many years the connection between the circulating and kidney changes has been a subject which has given rise to a great deal of discussion.

There is no doubt that cardiac hypertrophy may occur in a simple Bright's disease without any involvement of the general arteries. We have probably two factors contributing to the hypertrophy, the increased pressure in the circulation caused by the necessity of getting rid of waste matters. As a great number of capillary districts are obliterated by the disease, the heart must increase in strength in order to effect the necessary elimination; but the chief cause for the hypertrophy of the left ventricle is

the retention in the blood of matters which in a normal state of the kidneys would be eliminated. This causes high arterial tension and gives rise in consequence to increased work and consequently to hypertrophy.

The last group of causes giving rise to cardiac hypertrophy which it is my intention to speak of is the neurotic group. To this belongs the enlargement coming in exophthalmic goitre, essential tachycardia, insanity, prolonged emotional disturbance, etc. The excessive action of the heart in these cases leads to enlargement, but little is known about the intimate changes in the nervous system which brings them about. Our knowledge of the changes which take place in the nervous mechanism of the heart is very slight indeed. It is highly probable that in the case of heart changes coming on during the course of exophthalmic goitre, essential tachycardia and from the excessive use of tobacco, tea and coffee, the changes are of a molecular nature. There is very good grounds for believing that all the essential symptoms of exophthalmic goitre are due to the action of certain toxins generated from the thyroid gland. Possibly it may be found that essential tachycardia is brought about also by a chemical poison generated within the body. The hypertrophy and dilatation of the heart occurring in exophthalmic goitre reaches sometimes an extreme degree, and cases are not uncommon where death is the direct result of degeneration occurring in the heart muscle. I am not aware of any fatal case of tobacco-heart. It is quite possible that such a heart might give way at last under the continuous strain, but fortunately the cause is easily detected, and if removed the effects disappear, although to this there are rare exceptions. An abiding palpitation has been described even after tobacco has been given up.

The enlargement of the heart occurring in the course of infectious fevers is mostly due to dilatation of the cavities, and hence is properly beyond the range of my subject. The subject is one of very great importance. I recently saw a

case of typhoid fever where a fatal result came about indirectly, if not in a measure directly, from heart dilatation consequent on a secondary infection.

A word more about the symptoms and physical signs of cardiac hypertrophy.

The recognition of cardiac hypertrophy is easy when it is well marked, but difficult, if not impossible, when slight. There is seldom any pronounced subjective symptoms while the cardiac muscle retains its normal vigour. It is only when degenerative changes have set in that the patient feels that he has a heart. When this takes place the symptoms do not differ from those of cardiac failure brought about from valvular disease.

The physical signs of an hypertrophied left heart are increased tension in the radials, well-marked apex beat and accentuated aortic second sound. When the right heart is hypertrophied we have an accentuated second pulmonary sound. These signs are only of value as pointing to increased tension in the various vessels, and when this has lasted some time we naturally conclude that there is hypertrophy. If however, a cause which has been in operation for some time is no longer present, the signs of increased tension will have disappeared, although the hypertrophy remains. Percussion is no doubt of value in many cases in detecting marked hypertrophy, but for slight degrees it can give us no reliable information. The shape of the chest has much to do with the extent of cardiac dulness. When it is barrel-shaped a large heart will present a no greater degree of dulness than a small heart in a flattened chest. A great degree of dulness can only take place in dilatation. Again, a large heart may be more or less entirely covered by an emphysematous or hypertrophied lung.

TWO COMPLICATED BREECH CASES OF LABOUR.*

By G. A. BROWN, M.D.

Two difficult breech cases of labour having occurred in my practice within a short space of time and having the same complication, I thought I would report them and at the same time say something of the method of treating the complication.

Case 1. Mrs. B., aged 32, medium-sized woman; has been fairly healthy; has had two children, the first was an eight months' child, and the second went to full term. During all the time that she carried her children she complained of persistent vomiting, and when pregnant five years ago the vomiting was so severe that artificial abortion was performed for her relief. When she became pregnant this last time I put her on small doses of chloral and bromide, which controlled her vomiting, and she had good health after the third month. About one month before labour she fell down-stairs, which might account for the complication present during labour. Her labour began Wednesday, October 3rd, at 2 p.m.; pains were strong and frequent; membranes ruptured at 4. At 5 o'clock I saw patient and made an examination, and found the breech presenting in the left dorso-anterior position and well down, almost touching the perineum. Fœtal heart was strong. From 5 to 9 o'clock there was no change in the position of the breech, although the pains were very strong and frequent. At 9 o'clock the pains began to grow weaker, and as there had been no advance of the fœtus I decided to give chloroform. After the patient was anæsthetized I made an examination and found the legs were extended, forming a wedge with the arms and head. The forceps were applied to the breech several times without moving it to any extent, and always ended in slipping.

* Read before the Medico-Chirurgical Society, December 28th, 1894.

Traction by means of a finger in each groin was made without any result. I then succeeded in introducing my hand in utero and seized the foot of the anterior limb by the instep, flexed the left leg on the thigh by sweeping it across to the right side of the child's chest, and at the same time rotating the knee outwards and everting the thigh. The limb was delivered by internal rotation of the thigh and extension of the leg. The foetus having turned cynotic at this time I endeavored to deliver it hurriedly, but it seemed to be still further arrested and on examination the arms were found to be extended. The posterior arm was easily delivered, but on making traction on the foetus the anterior arm became locked between the head and the symphysis pubis. As the child was dead and the arm could not be dislodged I severed it from the chest wall and delivered by tying a noose around it. The head became extended during my manipulations and I had difficulty in causing flexion before delivering the child. The time for these manipulations was about one hour and a quarter. The patient made a good recovery. Her temperature rose to 100° F. on the third day and fell to normal on the sixth.

Case 2. Mrs. F., primipara, age 44, is a large well developed woman; has been fairly healthy, no illness of any extent; has been married twenty years; family history tubercular, one brother and sister having died of phthisis. Patient came to me in August complaining of an abdominal tumour, which on examination proved to be pregnancy. Her last menstrual period was January 20th, and vomiting did not set in until the end of March. Felt life about the end of June. On October 18th I made an examination of the patient as she was complaining of severe pains in the abdomen. The breech was found presenting in the left dorso-anterior position. At this time no abnormality was discovered. Pains having ceased I did not see patient until November 29th. She had complained of oedema of the legs and frequent micturition during the intervening time, and two days previous to her labour had severe pains off and on. Labour began at 2 a.m. Thursday.

The pains were good and strong up to 6 a.m., when I saw the patient and made an examination; found the os dilated to about the size of a fifty-cent piece and the breech presenting in the left dorso-anterior position. Foetal heart normal. Pains continued strong and frequent up to 11, when they began to grow weaker and less often. On examination the os remained about the same and there was no advance in the breech. Patient was feeling pretty well played out and complained of severe headache. I decided to give her chloroform and deliver the breech. Patient being anaesthetized, on examination there was found extension of the legs forming a wedge with the head and arms. As in the former case, I decided to introduce my hand and break up the wedge. The os being dilated manually the hand was with difficulty introduced, and the instep of the anterior limb seized and the leg delivered as before. After this the arms were delivered before traction was made on the fetus, thus avoiding the accident which occurred in the previous case. After delivery of the arms traction was made without result, as the foetal head was arrested at the brim. I attempted to apply forceps, but failed, and on bimanual examination the head was found very large and fluctuating, and the diagnosis of hydrocephalous was made. I then severed the vertebral column in the dorsal region and passed up a gun-elastic catheter to the cranial cavity and drew off one gallon of fluid. The foetal head was then easily delivered by traction on the body. Time for manipulations was about thirty minutes.

The measurements of the foetal head were as follows: Occipito-mental $20\frac{1}{2}$ inches, bregmatic 21 inches, occipito-mental $21\frac{3}{4}$ inches. The placenta was about $3\frac{1}{2}$ by $4\frac{1}{2}$ inches and was very soft and friable. About two hours after labour patient had post-puerperal convulsions, which were very severe and which lasted for three hours and were controlled by chloroform, chloral, bromide and a purge of hydrarg. subchlor. with pulv. jalap cc. The urine contained 2 per cent. of albumen. Patient made a good

recovery. Lactation was established on the fifth day and with it a little rise of temperature, which fell to normal on the following morning. Albumen disappeared on the sixth day.

As will be seen by the method adopted in the second case, I profited by the experience gained by the first. Had I followed this method in the first case I am sure I could have delivered a living child. There are several methods of dealing with this complication. First, forceps; second, soft fillet or hook; third, introduction of the hand up to the fundus, seizing a foot and delivering it, thereby breaking up the wedge by causing extension of the vertebral column.

Forceps are recommended by many good authorities, as Tarnier, Lusk, etc., but I think that it is a waste of time to apply them, as they are fitted to the thin end of the wedge and in nine cases out of ten are bound to slip and cause a great deal of damage to the maternal tissues. Besides, traction cannot be made in the right direction, that is, usually to the right or left side, in order to change the flexion of the vertebral column to extension, which is a most important thing in breaking up the wedge. Another danger of repeated application of forceps is perhaps to stimulate the child to breathe and cause its death in utero.

The soft fillet is still recommended by different authorities, but there is often great difficulty in applying it, and it takes a great deal of time, and even then one is not always successful. There is also danger of lacerating the child's tissues and fracturing the femur. The third method seems to me to be the most scientific, and is therefore the best, as it breaks up the wedge, is quickly performed, and causes less damage to the foetus and maternal soft parts. If one should fail to introduce his hand owing to contraction of the pelvis or tetanic spasm of the lower uterine segment. I think that the soft fillet would be the best and surest method of delivery.

The second case having had a complication of hydrocephalus, the cause of which is obscure, I would suggest a possible explanation of this case and be glad to have an expression on this subject from the members.

We had here disease of the mother's kidneys and of the placenta, which performs the same function in the child, Why should not local dropsy occur in the cranial cavity in the child just as ascites occurs without general œdema in the adult? The fact that the head receives the freest circulation in the fœtus would determine the site of the fluid effusion.

Hospital Reports.

CLINICAL NOTES ON SOME UNUSUAL TYPES OF TYPHOID FEVER OBSERVED IN THE ROYAL VICTORIA HOSPITAL DUR- ING THE YEAR 1894.

By JAMES STEWART, M.D.

CASE I.

Typhoid fever setting in with meningitic-like symptoms---Intense headache---Island Scotoma---Vomiting---Extreme hyperæsthesia---Retraction of the head and neck---Intolerance of light and sound---Marked stuporosity---After the 9th or 10th day the course of the fever was that of a moderately severe attack---Ten days after the temperature became normal in the evening symptoms of neuritis of the lower extremities were manifest---Disappearing after a few days---Complete recovery.

It is not uncommon to meet with cases of typhoid fever where, during the first few days, the intensity of the headache and the presence of vomiting, makes one suspect the presence of an acute meningitis. It is rare, indeed, to have such a collection of symptoms as were present in the following case.

The intense headache, with vomiting, the stuporous state, retraction of the head and hyperæsthesia formed a clinical picture pointing strongly to inflammation of the cerebral meningies. This was further strengthened by the changes in the retina.

The central scotoma were found five days before his admission, and it was then thought that it was almost certainly an acute cerebral meningitis. It was not till the 8th or 9th day of the disease that it was possible to be certain that the case was typhoid fever. The copious typical rash and the enlargement of the spleen, together with the subsidence of the headache and hyperæsthesia and the disappearance of the stupor making matters clear.

It may be contended by some that the cerebral symptoms were actually due to a meningitis which passed away. It is, however, much more likely that they were of a functional character, induced by the blood intoxication. The patient is neurotic as evidenced by his being subject to neuralgia and migraine. The retinal scotoma varied from day to day. A patch that was found one day amaurotic was only amblyopic the following day. This could hardly be caused by gross changes in the optic nerve or its terminations. The scotomata resemble those that have been met with in functional disease (hysteria).

It is a question whether the post-febrile symptoms were entirely organic, entirely functional, or partly one and partly the other.

Their rapid disappearance is hardly consistent with an amount of change necessary to account for such decided symptoms. The considerable loss of power in the extremities with the marked skin and muscular hyperæsthesia—especially the latter—point to an organic base with a superadded functional disturbance.

[REPORTED BY F. M. FRY, M.D.]

The patient was E.H., a male, aged 32, of small frame and stature, but well nourished and very intelligent, was admitted into the hospital on the 27th November, 1894.

His complaints were "severe pains in the head, back and stomach, with loss of appetite and general listlessness."

In getting the history of the present illness, it was ascertained that during the last five years he had been subject to severe headaches, which were described as being sometimes neuralgic, and at other times being sick headache, accompanied by nausea and vomiting.

These headaches occurred once or twice every week, lasting many hours or a whole day, and were precipitated by exertion, by a draught, or by the very smell of chemicals.

The headaches, however, never prevented his sleeping well at night, but he always "slept too heavily." He

always noticed before a headache occurred a feeling of "dulness and heavy eyes."

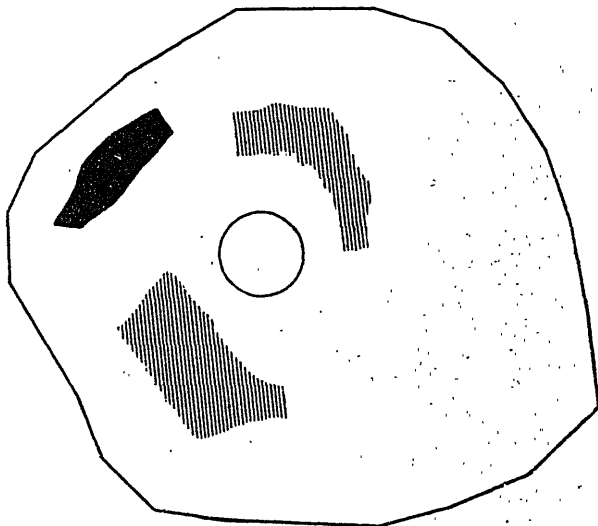


Fig. 1. Right field.

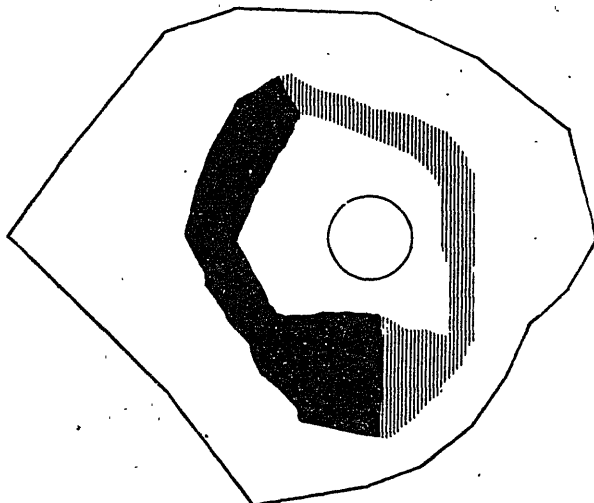


Fig. 2. Left field.

Dark patches represent total loss and shaded parts partial loss of vision.

Six days previous to his admission into hospital, the intensity of the headache was such as to suggest the likelihood of a meningitis. Dr. J. W. Stirling examined the eyes and found the fundus of both eyes somewhat hyperæmic and distinct patches of lessened or extinct vision in both fields.

In the left eye, as illustrated in the cut, the disturbance of vision forms a ring scotoma, in the outer half of which vision was nil, while in the inner half the vision was only diminished.

In the right eye, three Island scotoma were found, one representing total loss of vision, while the loss was only partial in the other two. On the following day, Dr. Stirling made a second careful examination and found the spots which were completely blind the previous day only partially so.

Four days before admission the headaches became more severe, and they were now continuous, except for a few hours at night. His appetite, which had kept excellent, failed him on the fifth day before admission, and the headache became worse each day. There was no diarrhoea, melæna, abdominal pain, nor epistaxis.

Three hours before admission he was bothered by vomiting of a green material, and so tender was his skin that the lightest touch, or the mere weight of the bedclothes, made him jump off his bed in pain.

In his family there is a history of epilepsy in one brother, aged 9. No other neuropathic history. Father died of heart disease at 53 years.

His personal history is that of an active young man, enjoying good health. He was born in Cambridge, Eng., in 1873, moved to London in 1878, and to Montreal in 1892, working as pathologist's assistant.

Habits have always been regular. He smokes considerably. Had scarlet fever when very young and never had rheumatism.

On admission on November 27th, the patient lay motion-

less in a profoundly dull, somnolent condition, approaching coma. He could with difficulty be aroused to answer questions, which he did in monosyllables only. He constantly kept his arm or the bed clothes over his eyes. On inquiry he complained of most severe headache, especially over and behind his eyes, and at times in the eyeball. On allowing any light to fall on his eyes he complained of severe pain. He also complained of pain in the muscles at the back of the neck; there was marked rigidity there and the head was slightly retracted to the right.

Slight pain about the abdomen was complained of. The slightest touch on any part of the trunk or extremities threw the whole body into sudden painful tonic spasm. There was more marked hyperæsthesia about the splenic region and about the inferior angle of the left scapula, though the points of more marked hyperæsthesia changed about completely from time to time, at times being over the right half of the abdomen. This was much less marked on deep pressure than on superficial palpation. There appeared to be slight tenderness on deep pressure in the right iliac fossa.

There was no abdominal distension and no eruption.

The pupils were normal.

Temperature was 104° ; pulse, 100; respiration, 24.

He was given quinine gr. ii every four hours, milk diet, and a cold Leiter's coil was applied to his head.

For the next two days slight diminution in the headache, dull mental condition, and hyperæsthesia were the only changes.

On the next, or the seventh day of disease, he was considerably brighter, and the hyperæsthesia was at times only slight, at other times as marked as ever.

On the next day, or precisely the 8th day of disease, a large crop of typical typhoid papules appeared on the abdomen, axilla and chest. These kept coming out for six or seven days, and each papule was observed from two to four days. Urine was 1030 ac. high colour, no albumen nor

sugar and cold nitric acid brought out a crystalline layer of nitrate of urea. The temperature on these days only varied one degree in the twenty-four hours, averaging 103° . The stools were slightly formed, greenish and very offensive. The spleen was considerably enlarged on percussion, palpation being unsatisfactory.

Cold baths at a temperature of 70° - 65° were now given every three hours, when the temperature was above $102\frac{2}{3}^{\circ}$ F. For the next thirteen days, the temperature was intermittent, reaching about 103° at night and 100 in the morning. Temperature as well as the pulse and respiration rates were lowered markedly by each bath.

There was occasional slight abdominal distension with wandering pains in the abdomen.

The bowels moved naturally throughout, the stools becoming liquid, yellow, very offensive, without showing any milk curds.

Only six baths were given.

After a fastigium of twenty days, the temperature fell gradually by most regular steps through nine days, after which it remained normal or slightly sub-normal.

On the tenth day of normal temperature he was given chicken and soft food, and when two weeks of normal temperature was reached, he was allowed to sit up for a few minutes. A plain, soft, systolic murmur heard at the apex of the heart during ten days of his fever, was now quite absent. The pulse was exceedingly variable, being recorded at 8 a.m. as 120, and found at 9 a.m. to be 95. This was repeatedly noticed.

There had been no complications.

On the day before he sat up he complained of soreness and pains in his left arm and about his shoulder. On the day following his first attempt at walking, he complained of very painful cramps in the calves of both legs. On the following day there were the same complaints of the left calf only, and there was in the left leg marked comparative weakness of all the movements at the knee

and ankle, with a suspicion of diminished sensation over the calf and most extreme muscular tenderness of the calf, simulating the earlier hyperæsthesia. The left patellar reflex was increased. He was given Fuller's lotion locally and salicylate of soda gr. xx. t.i.d. internally. The condition improved markedly daily, and he was discharged on the sixth day of this complaint, well and walking normally, being ordered an iron tonic. His field of vision was tested and no scotoma made out. 35. lbs. weight was lost in his fever.

Reviews and Notices of Books.

Dictionary of Medicine; Including General Pathology, General Therapeutics, Hygiene and the Diseases of Women and Children. By various writers. Edited by RICHARD QUAIN, Bart., M.D., LL.D., F.R.S., President of the General Council of Medical Education, &c., assisted by F. T. ROBERTS, M.D., Physician and Professor of Clinical Medicine, University College, &c., and J. MITCHELL BRUCE, M.A., M.D., Physician and Lecturer on the Principles and Practice of Medicine, Charing Cross Hospital, &c., with an American appendix, by S. T. ARMSTRONG, M.D., Ph.D., Visiting Physician to the Harlem Hospital, New York. New edition. Revised throughout and enlarged. Two volumes. New York: D. Appleton & Co. 1894.

It is impossible in the space at our disposal to give anything like an accurate idea of the extent and range of the subjects dealt with in these two large volumes. As compared with the first edition, there is a marked improvement in the fullness with which the various subjects are considered. While the first edition, published in 1882, contained about 1,800 pages, the present one contains 2,500 pages. The illustrations, which are fairly good, have been also increased considerably.

The success attending the sale of the first edition has been very marked, no fewer than 33,000 copies being sold in England and America. This fact alone is sufficient proof that the work is one that is highly appreciated by the profession. There can be but little doubt, we think, that the present edition will be received as favourably as its predecessor. This success is, we believe, mainly attributable to the fact that there are few subjects in the realm of practical medicine that are not dealt with, so that the busy-practitioner seldom fails to find what he wants when he consults its pages.

Works of this character necessarily take a long time in preparation, and it not infrequently happens in consequence that months, and sometimes years, elapse between the pre-

paration of an article and its appearance in print, the matter becoming in the meantime stale. The editors have taken pains to lessen this objection by a late revision and the addition of an appendix which contains new matter appearing subsequent to the preparation of the various articles.

In many instances the writers of the articles in the present are the same as those of the earlier edition, but in several cases, on account of the hand of death, new writers had to undertake the task of revision and addition. Among the more prominent writers of the first edition who have laid down their pens forever are Charles Murehison, Edmund Parkes, Lockhart Clarke, George Callender, Tilbury Fox and several others.

Of necessity the various articles, where the contributors are so numerous, differ much in completeness and value. It would be easy to mention a few articles in these volumes that have not been dealt with in an altogether satisfactory manner; but the proportion of such is so small as compared with the large number where the writer has given everything of value, that it would serve no useful purpose to mention the former in detail.

The articles on the central nervous system have been for the most part contributed by Gowers and Bastian. These names are a sufficient guarantee of the work in this important department. A special article is contributed by Greenfield and Muir, of Edinburgh, on Micro-organisms. This will be found to be of value to those who have no special work on the subject.

The work on the whole will be found to be of great value as a work of reference for the busy practitioner.

It is issued by the American publishers in two large well printed and bound volumes.

Diseases of the Ear. A Text-book for Practitioners and Students of Medicine. By EDWARD BRADFORD DENCH, Ph.B., M.D., Professor of Diseases of the Ear in Bellevue Medical College, &c., &c. Eight coloured plates and one hundred and fifty-two illustrations in the text. New York: D. Appleton & Co. 1894.

Dr. Dench has brought out a very elaborate work on the ear, vieing in size and detail with the extensive works of Gruber and Politzer.

One cannot help but think that the supply of works in this special line must surely be in excess of the demand.

As for Dr. Dench's book we can hardly find anything to say but praise of it.

It evinces hard, thorough thought and work, and is, in every particular brought up to date as to treatment, diagnosis, &c., &c.

The first seventy odd pages are devoted to the anatomy and physiology of the ear, and here the excellence of both the letter press and the diagrams shine. Many of the latter are original, and those depicting the circulation in this region are very clear and useful.

In the pathological portion of the work we must take exception to the statement that true diphtheritic otitis externa is more common than croupous inflammation of the same district.

In the middle ear inflammations in addition to the ordinary purulent otitis media, the author names as a distinct disease (otitis media purulenta residua) being the after results of the ordinary purulent otitis media, where the discharge has ceased, and the physician is called on to treat the adhesions or other changes remaining.

We doubt if this is necessary, as the already profuse nomenclature of aural diseases is surely sufficient, and the grouping of these sequelæ in a separate category will not add to clearness.

But the admirable part of this really good work is the portion devoted to the dependence of aural affections on constitutional states, infectious diseases, and on diseases of the general nervous system.

This important subject is handled ably and at considerable length, which is notable, mainly, by its absence in other textbooks.

The work is well gotten up, printed and illustrated, and, even at the risk of being considered irreverent, we would place the book as a treatise on the same level, if not superior in some ways to the great works of the masters, Politzer and Gruber.

Mental Development in the Child and the Race.

By J. MARK BALDWIN, M.A., Ph.D., Professor of Psychology in Princeton University. New York and London: MacMillan & Co. 1895. Price, \$2.60.

The author of this work belongs to that young and vigorous school of psychologists which hopes for much outside of pure mental analysis. Professor Baldwin seems to perceive clearly that the investigation of the origin or genesis of mental states, like the study of embryology, must throw much light on the adult or mature condition, hence the author of this book has been for years among the most persistent and successful students of infant psychology.

The work in question is written under the guiding principle of development and evolution, though he has tackled the problems presented by a method different from that of Spencer and Romanes, and one which is more likely to appeal to the medical man at all events. The headings of some of the chapters of the work may suffice to indicate its scope and character; Infant and Race Psychology; A New Method of Child Study; Distance and Colour Perception of Infants; The Origin of Right-handedness; Infant's Movements; Suggestion; Theory of Development; The Origin of Motor Attitudes and Expressions; Organic Irritation; Conscious Irritation, etc. These topics are all interesting to medical men with a philosophic tendency—in other words, to the highest class in our profession. The physician is as constantly brought into contact with the mind as with the body, though he does not always consciously recognize the fact. We bespeak a recognition of this book by medical men as well as psychologists and teachers.

W.M.

Physiology for Beginners. By M. FOSTER, Professor of Physiology in the University of Cambridge, and LEWIS E. SHORE, Senior Demonstrator of Physiology in the same University. London and New York: MacMillan & Co. Toronto: Copp, Clarke & Co. 1894.

We are told in the preface that "This little work is intended for those who, without any previous knowledge of the subject, desire to begin the serious study of Physiology" . . . and the hope is expressed that it "may serve as an introduc-

tion" to Professor Huxley's *Elementary Lessons*. The latter work has served an excellent purpose, but the book before us will, in most cases, replace it now, as it is altogether better up to date, and, upon the whole, a much truer representation of the physiology of to-day. We regret that it is not a little larger, more in fact in this respect like Huxley's work. We do not think it is likely to be used as an introduction to Huxley's well-known "Lessons," though such a work was very much needed in every medical school as an introduction to physiology, as the majority of students take up the subject in the first year without previous knowledge of anatomy, physics or chemistry, and must needs be at a great disadvantage at the best, and especially so in attempting to use a large text-book. The names of the authors is a guarantee of the character of the work, but on its merits it deserves to be largely used.

W.M.

The Anatomy of the Nasal Cavity and its Accessory Sinuses, an atlas for practitioners and students.

By A. ONODI, M.D., Lecturer on Rhino-Laryngology in the University of Buda Pesth. Translated from the second edition by St. Clair Thomson, M.D., Lond., F.R.C.S., Eng., Member Royal College of Physicians. London: H. K. Lewis, 136 Gower street. 1895.

It is almost superfluous in one sense to review a work like Dr. Onodi's.

It supplies a long felt want, and will be a great aid to specialists, general practitioners or students in making clear at a glance the anatomy of this region.

The plates are beautifully clear and accurate, being reproduction of photographs taken of sections.

The English-speaking medical profession owe a debt of gratitude to Dr. St. Clair Thomson for putting this work before them.

As to the printers' work and engravers' it is in the highest style, the book having rather the character of an edition de luxe.

On Preservation of Health in India. By Sir J. FAYRER, K.C.S.I., M.D., F.R.S., President of Medical Board at the India Office. Pp. 51. McMillan & Co., London; The Clark Co., Toronto.

In the preface we are told that "The following pages contain the substance of a lecture delivered to the students of the

Cooper Hill College, as a guide towards the preservation of health in India."

The author commences with a short sketch of the physical character of India and its climate. He then enters upon the consideration of how to preserve the health, and what means are best to avoid the various diseases.

We strongly recommend anyone contemplating a trip to India to carefully read this little volume.

The Aseptic Treatment of Wounds. By Dr. C. Schimmelbush, Privat-docet and assistant surgeon in Prof. Von Bergmann's University Clinic at Berlin, with a preface by Prof. Bergmann. Translated from second German edition by Alf. Theodore Rake, M.B., B.S. (Lon.), F.R.C.S.; pp. 250. London: H. K. Lewis. 1895.

This is a most complete text-book on the aseptic treatment of wounds. The name of the author is a sufficient guarantee of the excellence of the work, without any commendation on our part. The whole subject is gone into in the most thorough manner. The fallacy of the old theory of infection by air is shown, and then the real causes of infection are pointed out. Explicit directions are given for sterilizing and preparing everything required for an operation.

The work should be in the hands of all who intend doing even the smallest surgical operation, for it is the best work we have on this most important subject.

The print is good and the style of the translator is easy and readable, and much pleasure as well as profit may be obtained from its perusal.

Chemistry: General, Medical and Pharmaceutical, including the chemistry of the United States Pharmacopia. A manual on the General Principles of the Science and their applications in Medicine and Pharmacy. By JOHN ATTFIELD, F.R.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain. Fourteenth edition. Philadelphia: Lea Brothers & Co. 1894.

This favourite work has reached its fourteenth edition. This is in itself a sufficient proof of its value. In the present edition all important advances have been incorporated to bring the work up to the present knowledge of the subjects of which it treats.

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- Removal of the Head of the Femur from the Lesser Sciatic Notch.** By B. Merrill Ricketts, M.D., Cincinnati, Ohio. Reprinted from *The Times and Register* December 15th, 1894.
- The Removal, by Trephine, of Fluid as the Result of Acute Cerebral Meningitis, with Report of a Case.** By B. Merrill Ricketts, M.D., Cincinnati, Ohio. Reprinted from *The Times and Register*, December 8th, 1894.
- Appendicitis.** By John B. Murphy, A.M., M.D., of Chicago, From *The Medical News*, January 5th, 1895.
- Treatment of the Opium Neurosis.** By Stephen Lett, M.D., Guelph, Ont. Reprinted from the *Journal of the American Medical Association*, November 28th, 1891.
- Intestinal Anastomosis.** By Frederick Holme Wiggin, M.D. Reprinted from the *New York Medical Journal* for December 1, 1894.
- Analysis of the Cases Operated with Murphy Button up to Date.** By John B. Murphy, A.M., M.D., Chicago. Reprinted from the *Chicago Clinical Review*, February, 1895.
- Return to an Order of the Legislative Assembly of the 13th December, 1893, upon Coroner's Inquests.** By Wyatt Johnston, M.D.

Canadian Medical Literature.

[The editors will be glad to receive any reprints, monographs, etc., by Canadian writers, on medical or allied subjects (including Canadian work published in other countries) for notice in this department of the JOURNAL.]

PERIODICALS.

HYGIENISCHE RUNDSCHAU, 1894, No. 18.

- (1.) Beitrag zur Immunisirungsfrage—F. F. Wesbrook, Winnipeg.
NOVEMBER, 1894.

JOURNAL OF PATHOLOGY AND BACTERIOLOGY.

- (2.) Some of the effects of sunlight on tetanus cultures—F. F. Wesbrook, Winnipeg.
(3.) Two cases of actinomycosis of the brain—C. F. Martin, Montreal.

FEBRUARY, 1895.

THE CANADIAN PRACTITIONER.

Pathogenesis of simple gastric and duodenal ulcers—W. J. Greig, Toronto, p. 81.

- (4.) Certain forms of peripheral lesions in infantile paralysis—A. Primrose, Toronto, p. 87.
(5.) Symphysiotomy—G. P. Sylvester, Toronto, p. 92.
(6.) The antitoxine treatment of diphtheria—L. F. Barker, Baltimore, p. 99.

DOMINION MEDICAL MONTHLY.

- (7.) A brief note on anti-diphtheritic serum or diphtheria antitoxine—Charles Forbes, London, England, p. 31.

THE CANADA LANCET.

Thoracic phenomena of influenza—W. J. Greig, Toronto, p. 165.
Appendicitis and its surgical treatment—Geo. A. Bingham, Toronto, p. 169.

THE CANADIAN MEDICAL REVIEW.

Tumour of the middle lobe of the cerebellum—D. C. Myers, Toronto, p. 35.
Two cases of tubal gestation—A. B. Atherton, Toronto, p. 38.
A case of malingering—Murray McFarlane, Toronto, p. 41.

L'UNION MÉDICALE DU CANADA.

A travers les hôpitaux de Paris—Jules Jehin Prume, p. 57.
Le traitement des maladies des trompes de Fallope et des ovaries—A. Laphorn-Smith, p. 59.

THE CANADA MEDICAL RECORD.

Recent electro-therapeutics of goitre, with improvements in apparatus—C. R. Dickson, Toronto, p. 97.

MARCH, 1895.

DOMINION MEDICAL JOURNAL.

Clinical notes of a case of cancer of the œsophagus J. J. Cassidy, Toronto, p. 61.

Facts attesting the therapeutic value of antidiphtheritic serum in the treatment of diphtheria—Charles Forbes, London, England, p. 63.

THE CANADA LANCET.

The treatment of strangulated hernia—J. Wishart, London, Ont., p. 197.

Stomatitis Neurotica Chronica—J. Jacobi, New York, p. 202.

L'UNION MÉDICALE DU CANADA.

Diagnostic et traitement bactériologique de la diphtérie—Emmanuel P. Benoit, Montreal, p. 113.

De l'angine Diphtéritique toxique—Jules Jehin Prume (suite), p. 123.

MONOGRAPHS.

- (8.) Trembling Mountain (Laurentides, Canada), a high-level sanitarium for the treatment of tuberculosis—Dr. Camille Laviolette, Montreal.

(1.) It will be remembered that some few months ago Dr. Klein, of London, in criticising Haffkine's method of vaccination against cholera, made the interesting discovery that inoculations of animals with small doses of cultures of pathogenic bacteria, such as the bacillus of enteric fever and the *B. coli communis*, the *Micro-bacillus prodigiosus* and the *B. proteus*, confers upon them an immunity against the the bacillus of cholera. These results have been confirmed by Sobernheim in Germany, and by Kauthack in England. Wesbrook has now in Professor Fraenkel's laboratory at Marburg made further observations upon this subject. He finds there is a marked difference in the immunity from cholera conferred by inoculation of the products of the cholera spirillum and that conferred by the *B. coli* and the *M. prodigiosus*. These last only confer a protection of short duration, not exceeding eleven days (in guinea pigs), the first a much more durable protection; or, to put it in other words, the immunity conferred by cholera against cholera, by *prodigiosus* against *prodigiosus* is of a higher quality than that conferred by *prodigiosus* against cholera and *vice versa*. Klein's contention against Haffkine's

method of inoculating individuals against cholera with the products of cholera cultures is thus considerably weakened.

(2.) The powerful effects of sunlight as a germicidal agent has been known to us since 1877, when Downes and Blunt published their valuable paper in the Proceedings of the Royal Society. Of late the subject has been taken up actively by many workers, notably by Roux, Marshall, Ward and Buchner. Scientific research has amply proved the truth of this popular opinion that sunlight and fresh air are enemies of disease.

How this is brought about in a matter of considerable interest. Light and air acting together will, in a short time, destroy the poison of tetanus. But as the bacillus of tetanus is an anærobic microbe, it is important to know whether in the absence of air the same destructive action is manifest—to know, that is, whether reduction processes and the using up of oxygen are the essential causes of this bactericidal process.

Dr. Wesbrook's paper contains a series of observations upon this point. He finds that oxygen is a necessary factor in the destruction of bacteria by light, and by ingenious experiments shows that there is an actual diminution of the air during the process. In the absence of oxygen the sun is powerless to produce any harmful effect on the bacteria exposed to it.

These results confirm strongly the conclusions arrived at by Downes and Blunt, Duclaux and Roux.

It is interesting to note that Dr. Wesbrook came across a suggestive example of the survival of the fittest. Such spores of tetanus bacilli, as in certain cases, survived the action of combined light and air, gave cultures possessing increased virulence. It is not that during this process the spores gain in virulence, but, we would suggest, that virulence and vitality go in this case hand in hand and the destruction of the weaker brethren gives the stronger opportunity to exert full action.

(3.) In this article, which gives the result of a study of two cases made in the laboratory of Professor Chiari at

Prague, Dr. Martin calls the attention of English speaking medical men, for the first time, to the occurrence of this rare condition. He gives a clear account of the localities and characters of the actinomycotic lesions in the brain, and discusses the relationship of cerebral actinomycosis to that of the lungs and other organs.

(4.) These notes are upon two cases. The remarks on the first case are confined wholly to certain gross manifestations in infantile paralysis observed in a dissection made of a leg of a boy, aged 13, amputated at the knee-joint, the muscular control having been completely lost. The conditions observed were those of extreme atrophy of the muscles, vessels and nerves, but a feature of special notice was the abundance of subcutaneous fat, while there was little or no fat in the substance of the muscles themselves. By actual measurement, the total thickness of the limb was made up of muscle and bone $1\frac{1}{2}$ inches, with skin and cutaneous fat 1 inch. This condition of the subcutaneous fat in infantile paralysis opens up an interesting question as to the primary lesion in the anterior horns of grey matter in the spinal cord, and the effect of their involvement on the trophic nerves distributed to the subcutaneous fat. The author quotes Gowers who, in speaking of vaso-motor and trophic disturbance in the spinal cord, and more particularly of the changes in the nutrition consequent upon such conditions, remarks that "the changes in the nutrition of the skin, if slight and chronic, resemble those produced by disease of the nerves, and suggest disease of the *posterior* roots." In thus relegating the trophic nerves for the skin to the posterior roots, it would seem reasonable to suppose that in *anterior* poliomyelitis, the skin and probably subcutaneous tissue would escape, and would not take part in the atrophy affecting the muscles. The case presented proves that the usually accepted statements concerning the condition of the subcutaneous fat in infantile paralysis are not universally true, and the author believes that further investigation will show that it does not undergo atrophy in such cases.

The second case was one of hemiatrophy of the tongue in a boy of nine years of age. The lesion was apparently of central origin.

(5.) The case reported was that of an English woman aged 27, in her third confinement, the first and second delivery having been by embryotomy. The measurements with the pelvimeter indicated an antero-posterior diameter of $2\frac{5}{8}$ inches and an oblique $4\frac{1}{2}$ inches. Symphysiotomy was performed in the usual way on October 9, 1894. The measurements of the foetal head were, occipital frontal $4\frac{1}{2}$ inches, bi-parietal $3\frac{3}{8}$ inches, weight of child 8 pounds. The mother made an uneventful recovery. At the end of the third week a plaster of Paris bandage was applied about the pelvis, extending from the great trochanter to an inch or so above the brim of the pelvis. Two days later the patient left the hospital well and strong, accompanied by a healthy boy.

(6.) During the past month the usual amount of writing on the diphtheria antitoxin has appeared. Two papers may be noted, the one by Dr. Barker (of Johns Hopkins Hospital and a graduate of Toronto), is a concise but complete history of the investigations leading up to this method of treatment, as well as the manner in which the serum is prepared. The other (7) while giving a history of the treatment, appears to have been written in the interests of a large English firm of manufacturing chemists, and as such seems to be out of place as an original article in a Canadian medical journal.

(8.) In a short brochure on the treatment of pulmonary tuberculosis by mountain air, Dr. Laviolette states that it is his intention to open a Sanitarium on the slope of the Trembling Mountain. Having examined all the high lands in the vicinity of Montreal, he finally chose this spot, of which the late Father Labelle said that it was where he intended to end his days when he retired from the turmoil of public life. The Trembling Mountain is the highest point of the Laurentian range, having an elevation of 4,000 feet above

the level of the St. Lawrence River, and is well supplied with running water. It is four miles from the village of St. Jovite, a station on a branch of the C.P.R., and 84 miles north-west from Montreal. The plateau, on the side of the mountain, chosen for the site of the Sanitarium slopes from N.W. to S.E., and from it the scenery rivals that of Switzerland for grandeur and picturesqueness. At the foot of the mountain is the Trembling Lake, which is nine miles long and one and a half wide. The spot is in the centre of the "Trembling Mountain Park," a national park of 14,750 acres, recently set apart by the Government. The corporate body of the Sanitarium and the inmates will have the freedom of this princely domain, with its unrivalled opportunities for the hunter, the angler, the artist and the scientist to exercise their skill.

Dr. Laviolette deserves every encouragement in his undertaking, for with such splendid resources Canada has been too long without an institution of this kind, our invalids have been too long compelled to go away from home to seek for health among people alien in language and customs. The success of the sanatoria of Canigon in France, of Davos in Switzerland and of Saranac in the United States is now beyond question, and it only remains with the corporation of the Trembling Mountain Sanitarium, by judicious management, to make this Canadian health resort of lasting benefit to our sufferers, and to rival in popularity those already established.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

- Large Interstitial Uterine Tumour—Dr. Wm. Gardner.
Cholecystenterostomy with the Murphy Button—Dr. Shepherd.
Four Cases of Extra-Uterine Pregnancy—Dr. J. A. Springle.
Uterine Fibroid and Dermoid Cyst—Dr. A. L. Smith.
Foreign Body in the Bladder—Dr. Hingston.
The Late Dr. E. E. Duquet.
Perforated Gastric Ulcer—Dr. Kirkpatrick.
Gall Stones—Dr. Armstrong.
Multiple Carcinomatous Growths in a Cirrhotic Liver—Drs.
Finley and Adami.
On Two Different Conditions of the Mitral Valve Giving Rise to
Presystolic Murmur—Dr. Adami.
Syphilitic Nephritis—Dr. Lafleur.

Stated Meeting, January 25th, 1895.

DR. G. P. GIRDWOOD, PRESIDENT, IN THE CHAIR.

Large Interstitial Uterine Tumour with Great Development of the Uterine Wall and Moderate Increase of the Uterine Cavity.

DR. WM. GARDNER contributed this specimen and said that it appeared to belong to the variety of myoma, designated as lymphangiectodes; and, roughly speaking, was composed of intersecting bands or filaments of pearly white tissue bounding spaces containing a clear straw-coloured fluid.

The case was interesting from its rarity, its rapid growth, its consistence as felt through the abdominal wall, and otherwise in some respects presenting difficulties in diagnosis. The patient was aged thirty-two, and married eight years, sterile, menstruation regular till three or four months ago, the flow being copious and painful. Otherwise her complaints were of pain in the left lumbar region and in the legs, and of abdominal enlargement. The patient said that previous to a year ago there was scarcely any enlargement. The abdominal tumour resembled much in

feel and in other characters the gravid uterus of seven months, presenting at intervals the painless contractions so valuable a sign of pregnancy, as insisted upon by Dr. Braxton Hicks. The fact, however, that this sign is occasionally met with in the softer varieties of uterine tumours, was demonstrated by the late Dr. Matthews Duncan. This consistence of the tumour and marked purplish discolouration of the genitals, with pigmentation of the linea alba, and areola about the nipples, had given rise to the suspicion of pregnancy; a suspicion which was shared by a member of the profession. The operation was done a fortnight ago and the method chosen was supravaginal amputation after ligation of the ovarian and uterine arteries, and intra-peritoneal treatment of the stump. The recovery had been absolutely without unfavourable symptoms.

Cholecystenterostomy from the Use of Murphy's Button.

Dr. Shepherd, at a meeting held September 21st, 1894, reported a case of cholecystomy in which a fistula remained, and he stated then his intention of doing a cholecystenterostomy should the fistula not close within three months. She returned to the hospital November 28th, 1894, looking well and healthy, and having gained considerably in weight. She, however, said the continued discharge of the bile was unbearable, and asked that an operation be performed for relief. So, on December 3rd, she was placed under ether and an incision was made a little internal to the first one, and the fistulous opening thus avoided. The gall-bladder was seen attached firmly to the abdominal wall. On examining the site of the supposed gall-stones found at the last operation in August, he came down on a large mass, the size of an orange, which apparently involved the head of the pancreas and duodenum. Being convinced that the case was one of malignant disease, and that all measures for relief could only be temporary, it was decided to unite the gall-bladder to the colon by means of a Murphy button, the duodenum being fixed and

not easy to get at. The button was introduced without much difficulty, the purse string suture being first applied; owing to the thickness of the gall-bladder, there was some puckering and it was difficult to get the folds to lie flat. The thinness of the colon was remarked, and the button when pressed home could be seen distinctly through the walls of the gut, so a few Lembert's sutures were introduced. As the patient had malignant disease, it was not considered very important to close the fistulous opening, as it was felt that this would gradually diminish in size when there was free communication between the gall-bladder and the gut. On dropping back the bowel and gall-bladder the parts seemed to lie quite comfortably without tension. The abdominal wound was now closed with two layers of sutures.

The patient went on excellently well for three days, very comfortable, with no pain and no discharge of bile from the fistulous opening. On the evening of December 6th, she complained of chilliness, and bright red blood began to ooze through the fistulous opening which led to the gall-bladder, and large clots of blood could be squeezed out. The bladder was packed with iodoform gauze, but in a few hours the blood began to force its way through the abdominal wound, and the pulse began to fail, so it was decided to reopen the wound and examine the source of the hæmorrhage. On opening that, however, the parts were free from any peritonitis or sepsis, but there was a considerable amount of clotted blood in the abdominal cavity in the neighbourhood of the stomach, besides a quantity in the gall-bladder. On examining the anastomosis, it was seen that the button had cut through the gall-bladder, and from this cut there was free bleeding. There was no gangrene of parts in contact with the button. The button was immediately removed and the wound in the colon and that of the gall-bladder sewed up. In the latter, owing to its great friability, this was a difficult matter. Blood still came and so the gall-bladder was packed with

iodoform gauze and the wound closed as the patient was getting much weaker. Next morning the dressings were found to be soaked with blood, and all efforts to stop it failed. She died that evening. A hurried examination was made after death and carcinoma of the head of the pancreas and duodenum was found, which pressed the common duct. The gall-bladder was full of blood, the suturing having failed to arrest the hæmorrhage. Dr. Shepherd remarked that such cases as this rather damped one's enthusiasm for Murphy's button, but still the case was one of cancerous disease, and such cases were more liable to hæmorrhage than others.

Dr. JAMES BELL had listened with great interest to the result of this operation. He never had occasion to apply the Murphy button in the operation of lateral anastomosis in the human subject, although he had done so experimentally in the dog. However, he had often thought that a cholecystenterostomy, especially uniting the gall-bladder to the first portion of the duodenum, must be a good deal more difficult operation to perform than it is described as being. The difficulty of suturing the gall-bladder was in his mind while Dr. Shepherd was describing his case. Since his three cases, reported a few weeks ago, he had performed another end to end anastomosis with every prospect of a satisfactory result so far. There was a very chronic obstruction, the ileum was much dilated, the muscular coat of the walls greatly hypertrophied, being perhaps $2\frac{1}{2}$ inches in diameter at the point of section. On the other hand the distal portion was perhaps smaller than usual. In puckering up the purse-string suture over the end of the proximal portion of the bowel, which was also greatly thickened, he found difficulty in getting the edges evenly turned in, and after uniting the button, he noticed some mucous membrane protruding. He then cut the string, unscrewed the button, made another section, and applied the button a second time with better success. The question of hæmorrhage in Dr. Shepherd's case was a little

difficult to understand. There were no large vessels to bleed in the substance of the gall-bladder itself, as it is not a vascular structure under ordinary circumstances. His first impression, upon hearing of the hæmorrhage, was that it came from some portion of the meso-colon. It was certainly difficult to understand what combination of circumstances could make the gall-bladder bleed so profusely. He could well understand that an experience of this kind would not predispose a man to repeated operations with the Murphy button. He thought that it had been used oftener than advisable in cholecystenterostomy. The plea is, that in a certain percentage of these cases, a fistula remains permanently. On the other hand he believed opening the duodenum to be a great element of danger. Then the history of the earlier cases, those done before the Murphy button was introduced, of establishing a communication between the gall-bladder and some portion of the intestines, was a very unfortunate history all through. Many cases of inter-communication of the contents occurred, setting up disastrous, if not fatal results.

Four Cases of Extra-Uterine Pregnancy.

Dr. SPRINGLE read this paper, which will be found at page 661 of the March number.

Dr. HINGSTON said that some years ago Dr. D'Orsonnens, a very distinguished accoucheur in Montreal, mentioned a number of cases in which no operation was performed, and where the patients ultimately made good recoveries. He (Dr. H.) saw two of the cases to which Dr. D'Orsonnens alluded, where the foetus came away, piecemeal, through the abdominal wall in one case, and through the rectum in the other. Dr. D'Orsonnens' experience in the Maternity and in private practice went to prove that in extra-uterine pregnancy rupture did not necessarily follow, and that when rupture occurred, death did not necessarily take place. Sometimes nature was sufficient to bring the child into the world. He (Dr. H.) had an instance of this four years ago. He was asked by a medical gentleman of this

city to see a lady for the purpose of removing what was considered an ovarian tumour. He saw the lady, examined her carefully, found the uterus perfectly free; depth of cavity normal, yet was there a large swelling, more to the right side than to the left, and on close examination he came to the conclusion it was not a tumour, but partly interstitial, partly tubal pregnancy. He advised the operation to be put off till the seventh month. The lady was again seen at the seventh month, and being in excellent health, the operation was deferred till the eighth month. About the time when the operation was to take place, being in the neighbourhood, he called on the lady, and while talking to her something like labor pains came on. On examination he found the os uteri dilated, and the membranes projecting from the side of and into the uterus. He suggested that an accoucheur be sent for and left. He learned afterwards that the child was born without difficulty in the natural way. Both parent and child were alive to-day. He merely mentioned this case to show that, in some instances, exceptional no doubt, interference was not necessary, and that especially when foetation was partly interstitial and partly tubal. Dame Nature may, and does, sometimes, dispense with our art.

Uterine Fibroid.

Dr. LAPHORN SMITH exhibited a fibroid uterus which he had removed fifteen days previously from a German woman at the Samaritan hospital. The patient was thirty-five years of age, but looked much older, and was very anæmic from menorrhagia, the flow being very profuse and lasting fifteen days. Although this had been going on for five years, it was only during the last three years that she had noticed the tumour which, when she came under observation, made her appear the size of a woman seven months pregnant. The method employed was that followed by Bantock and Price and Tait, by *serre-nœud* and the extra-peritoneal treatment of the stump. The tumour weighed, when fresh, about fifteen pounds, was symmetrically oval,

smooth and dense, and had two small subperitoneal fibroids on top of it between the ovaries, which latter were large. The *serre-nœud* had been removed on the 6th day, and the stump cut away on the 12th day. The patient was eating well, and pulse and temperature had hardly gone above normal, 100½ for one night only. She was now sitting up a little every day. While admitting the many advantages of the new method by which no stump at all is left, he felt safer with the extra-peritoneal method and still employed it whenever he was particularly anxious for the patient to recover, or in other words, in every case.

Dr. HINGSTON thought there were some cases where the operation must necessarily be intra-peritoneal, and when it could be performed it was also the better; but there were cases where the extra-peritoneal was the better operation. He had operated by both methods, and while he gave the preference to the intra-peritoneal method, he found that each had advantages in certain cases. Much depended upon the length of the cervix, the nature of the tumour, and the facility or otherwise, with which the stump could be drawn through the abdominal wound.

Dermoid Cyst.

Dr. LAPHORN SMITH exhibited a dermoid cyst of the right ovary, which he removed a week before at his private hospital, from a lady, fifty-six years of age, who was suffering great pain, as well as from profuse menstruation. On examination, the uterus was found to be enlarged, there being several small fibroids in its anterior wall, and the cervix was badly lacerated, while a solid tumour, the size of a small orange, occupied Douglas cul-de-sac. She was very weak from these hæmorrhages, which began ten years before and had gradually increased. The periods, however, had never ceased at the usual age for the menopause. The uterus was curetted, the cervix repaired, and the dermoid cyst and the other ovary removed. She suffered so little pain that she did not even require the hypodermic injection of a ¼ grain of morphia, which he

always allowed, while she declared herself to be absolutely free from pain the day following the operation. The object of removing both ovaries was to put a stop to the menorrhagia. On cutting open the cyst it was seen to contain an outside layer of pure white sebaceous matter around a central ball of hair; but it contained no teeth. The operation presented no difficulties, and illustrated the importance of recognizing and removing the tumours while they were yet small.

Foreign Body in the Bladder.

Dr. HINGSTON exhibited a wax candle which he had removed from the bladder of a lady who had been using it for purposes of sensual gratification. On the last occasion, which to her would be a memorable one, it slipped from her finger and was seen no more. She suffered intense pain in consequence, and finally was compelled to seek surgical aid. After successively examining the vagina and rectum and bladder, Dr. Hingston located the foreign body completely within the latter organ (the patient only knew it had gone "somewhere down there"). He removed portions of it with bullet forceps, but owing to the softness of the wax those portions were inconsiderable. He therefore ordered the patient to the hospital, where, after chloroform had been administered, he succeeded in removing the whole of the candle, the longest piece measuring five and a half inches in length, the last and largest piece having been removed with a lithotomy forceps, such as is used for children. The most interesting feature in the case was Dr. Hingston remarked, the facility with which he could manipulate his finger, and an instrument upon it, through the urethra. It probably did not take more than ten or twelve minutes for him to gain an entrance to the bladder with the lithotomy forceps and the finger to guide it. There was very little suffering experienced afterwards from the operation, and no incontinence of urine resulted from it.

Dr. F. W. CAMPBELL mentioned several somewhat similar

cases which had occurred in the practice of the late Prof. Syme, during his attendance at the Royal Infirmary, Edinburgh. He also described a case which he had seen at the Montreal General Hospital, where the late Dr. Thomas Walter Jones, removed from the urethra, by perineal section, a carpenter's lead pencil. One case which occurred in his own practice some years ago, was that of a young man who came to his office and said that he had been waylaid and two large pins pushed into his urethra—the heads downwards. It was impossible to remove them *via* meatus, so the points were pushed through the sides of the penis and a small incision made to liberate the heads. The present case was the first the speaker had heard of where the female urethra was used for such a purpose, although those in which the vagina was used were not very rare.

The Late Dr. E. E. Duquet.

The following resolution was moved by Dr. HINGSTON and seconded by Dr. BURGESS,

"That this Society desires to record its sense of the loss sustained by the profession generally, and mental science more especially, by the recent death of Dr. Duquet, who, in a quiet and unobtrusive manner, had secured the respect and confidence of his professional brethren in Montreal, and the esteem and consideration of the more eminent alienists elsewhere."

Stated Meeting, February 8th, 1895.

DR. G. P. GIRDWOOD, PRESIDENT, IN THE CHAIR.

Perforated Gastric Ulcer.

Dr. KIRKPATRICK brought before the Society a patient on whom he had operated for this cause. (See page 670 of the March number.)

Dr. ARMSTRONG congratulated Dr. Kirkpatrick, and thought it was a credit to the Society for one of its members to have recognized this condition and performed the operation. He believed that this promised to be a field in which a great deal of useful surgery might be done; and

physicians should be stimulated to the early recognition of such cases. Although ulcers were more common on the posterior wall, rupture or perforation was more apt to occur on the anterior, which was fortunate, as of course it was more easy to reach the anterior wall of the stomach.

Dr. GURD said that he had been attending the girl for about a week before sending her to hospital. She had been suffering from the usual symptoms of anæmia with gastralgia. The pains in the stomach came on periodically about four or five o'clock every afternoon, and appeared to shoot up to the upper part of the chest. She was able to attend to her duties those of housemaid, when suddenly in the night she was seized with severe pains in the epigastrium. Dr. Gurd was asked by her employer for something to relieve her. He sent a $\frac{1}{4}$ grain of morphia. The next day he found the pain not very great, but much increased on pressure, temperature about 101° . The following day all the symptoms were rather worse, and an attempt to get her into the hospital was made, but without success. Two days went by before she could be admitted, during which time she had been growing worse, so much so that few who saw her before the operation thought she could recover.

Dr. ENGLAND said this case recalled to his mind a case reported by Dr. Armstrong, about 3 years ago, to whom he administered the ether. The case was that of a young lady, 22 years old, who was suddenly seized, while at a social party, with severe abdominal pain. Her previous health had been fairly good, though she had at times been troubled with indigestion, and was rather anæmic. The pains continued in spite of treatment by the local physician, and peritonitis developed. Seven or eight days after the onset of pain, Dr. Armstrong saw the case and recommended operation. Laparotomy was performed, the incision was made in the middle line below the umbilicus. General peritonitis was found to exist. The appendix vermiformis was located and removed, also the uterine appendages, the latter not being healthy and the wound closed. The patient

died, he believed, on the following day, and the autopsy revealed two large ulcers which had perforated the walls of the stomach, the perforation probably having occurred at the onset of pain, allowing the contents of the stomach to escape into the peritoneal cavity. On opening the abdomen it was found that firm adhesions had formed at about the level of the umbilicus, dividing the abdominal cavity into two zones. Into the upper the contents of the stomach continued to escape from the time of perforation until death. The lower zone showed signs of more recent and severe inflammation. His object in alluding to this case was to show that peritonitis, following perforation of a gastric ulcer, was not so virulent in character as was peritonitis from perforation of an inflamed appendix or other intestinal ulcer. Peritonitis in both these cases was slow in its development and of a subacute character; so different from the peritonitis which one expects to find when the bowel is ruptured or a pus tube breaks, and its contents escape into the peritoneum.

Dr. ARMSTRONG remembered the case referred to by Dr. England, and it was owing to that and one or two similar experiences that he acquired sufficient knowledge to recognize the condition and its seriousness in Dr. Kirkpatrick's case. In this way even our mistakes prove beneficial to mankind. He thought that it was these cases without any distinct history which were apt to rupture. The girl alluded to by Dr. England had been dancing when the rupture occurred.

Gall Stones.

Dr. ARMSTRONG showed two lots of gall-stones. The first bottle passed around contained, according to a count made by one of the students, 637 stones. This was a large number, but of course much larger numbers had been removed. The chief interest of the case was in the clinical history.

Patient a female, æt 64, was admitted to the Montreal General Hospital complaining of pain in the right hypo-

chondrium. The pain was so severe that morphia was given hypodermically to relieve it. She had had a little jaundice, lasting a short time, some three months before admission. The patient had the appearance of a woman suffering from malignant disease. She was pale and cachectic.

The operation was begun as an exploratory incision, with the idea of removing gall stones if they were found, and if malignant disease, the patient would be none the worse.

On opening the abdomen, the gall-bladder containing these stones was readily found, and fortunately for the patient, no evidence of carcinoma about this organ, liver or pancreas was discovered, with the exception of one enlarged freely movable lymphatic gland. As he could not bring the edges of the gall-bladder to the edges of the abdominal incision, and there was evidence of the patency of the cystic and common duct, Dr. Armstrong closed the opening of the gall-bladder and dropped it back. He then passed a glass drain down to the suture line in the gall-bladder as if any bile had escaped from the gall-bladder, the condition would have been the same as if the gall-bladder had not been sutured. The patient made a perfect recovery. An additional reason for operating for gall-stones in elderly people, was that the injury and local irritation caused by their presence might be an exciting cause of malignant disease. The association of gall-stones and malignant disease in the neighbourhood of the gall-bladder had long been noted.

The second bottle contained a lot of gall-stones which had been removed post-mortem by Dr. Stenning, of Coaticook. Their interest was in the fact that there were 3 pretty large stones, with 78 small ones. Mr. Tait had drawn attention to the fact that as a general rule gall-stone cases were divided into two distinct classes. In the first, there was one, two, or three, seldom more, large stones, and in the second a large number of small stones. This was the first instance coming under the notice of Dr.

Armstrong in which the small and large stones were found together in the same case.

Dr. ADAMI agreed that it was very unusual to find large and small gall stones together in one case. With reference to what Dr. Armstrong had remarked concerning the etiological relationship between gall stones and hepatic carcinoma, he reminded the Society that during this session he had exhibited a case in which this relationship appeared to exist, a case in which the bladder, full of gall stones, had become the seat of a suppurative inflammation, and cancer of the liver substance developed immediately outside the chronically inflamed bladder.

A Case of Multiple Carcinomatous Growths in a Cirrhotic Liver.

Drs. FINLEY and ADAMI brought forward this case, which was of interest both from a clinical and anatomical standpoint. Dr. Finley read the following history of the case:

C. D., aet 50, an Italian laborer, was admitted to the Montreal General Hospital December 24, 1894, complaining of swelling of legs and abdomen.

Personal History—He has always been extremely temperate and has not had any venereal disease. He has enjoyed good health up to the onset of the present illness. The family history is unobtainable as the patient speaks but little English. The present illness began on the 25th of October, with severe pain in the right hypochondrium radiating over the abdomen. A month later the abdomen began to swell and the pain disappeared. He has lost much flesh and strength.

Present Condition—He is much emaciated, the cheek bones are prominent and the muscles small and soft. A moderate degree of jaundice is present, the conjunctivæ being yellow and the skin brownish-yellow in colour. The tongue is heavily coated, the bowels constipated and the appetite poor. The temperature ranges from 97° to 99°, pulse 88 and of good volume. The abdomen is much dis-

tended and enlarged veins are seen in the flanks and over the right hypochondrium. The presence of a large quantity of free fluid is indicated by movable dulness and fluctuation. There is distinct fulness in the hepatic region, both in front and behind about the angle of the scapula. Hepatic dulness extends from the fifth rib to a hand's breadth below the costal margin and measures six inches. The edge of the liver can be felt through the fluid. Spleen is not palpable. The faeces are coloured, the urine very dark, with a deposit of amorphous urates; acid, S.G. 1020; no albumen, no sugar. Urobilin with Huppert's test. Tested for bile with nitric acid only a purple ring on filter paper.

December 26, 82 oz. of clear yellow fluid withdrawn with the aspirator. After paracentesis the lower end of the spleen is distinctly felt. The hepatic enlargement involves the right lobe only, its border passing beneath the ribs at the right parasternal line. The surface is slightly nodular and hard. Early in January nourishment was refused and rectal tenesmus with small clay-coloured stools set in. Death occurred on January 6th, being preceded by delirium, involuntary evacuations of urine and a semi-comatose condition.

The diagnosis lay between cirrhosis and carcinoma of the liver, the former being specially suggested by the enlarged spleen. The rapid emaciation, together with enlargement of the liver, an enlargement which it will be noted involved only the right lobe, was, however, strongly in favour of cancer, as was also an absence of an alcoholic history. Obstruction to the portal system evidenced by ascites would also explain the splenic enlargement. Urobilin and not biliverdin was constantly present in the urine, a fact which has been specially noted by Jakseh in the jaundice of hepatic disease.

Dr. Finley stated that at the autopsy performed by himself and Dr. Williams the body was found deeply jaundiced. The abdomen contained a large amount of fluid.

The liver weighed 4140 grms.; its right lobe was greatly enlarged, extending below the costal border and it was thickly studded with yellow nodules varying in size from that of small shot to that of a walnut. The larger nodules were friable and caseous in the centre. The left lobe had a roughened cirrhotic surface, was firm and somewhat diminished in size. Both externally and on section it presented the appearance of an atrophic cirrhosis. No nodules were discovered in it.

The spleen was greatly enlarged (1060 grms) and firm. To the naked eye the condition resembled that of cancer of one lobe and cirrhosis of the other, and sufficed to explain the symptoms which, as above noted, were those both of cancer and of cirrhosis.

Dr. ADAMI described the microscopical appearances of the liver. The right lobe on section had the appearance, observable in cases of extensive cirrhosis, of sharply marked-off small islands of liver tissue, many of them of pale yellow colour standing out, sharply from the surrounding tissue. In addition there were the larger and yet paler nodes of cancer. On microscopical examination the extensive cirrhotic change of monolobular type was well observed. The nodes or masses of new growth were sharply encapsulated. He felt some hesitation in describing them as fully developed carcinoma, for there was a tendency to preserve the type of liver tissue. In parts the cells tended to be arranged in columns resembling the relationship in the lobules of liver tissue, and judging from the amount of bile pigment deposited in some of them (as in cells of the surrounding functional tissue) they were not so far removed from the normal as to have lost all specific action. Again, the growths were not infiltrating, but were sharply defined and encapsulated. But in general the evidence of regular growth had been lost and the cells were massed together without regular order, while degenerative processes had affected the centres of many of the masses. Perhaps the term adeno-carcinoma would express this.

transition from simple to cancerous overgrowth. Frequently in cases of primary growths in the liver this difficulty is met with. Sections taken from the left lobe showed nodules of overgrowth, rare and small compared with those in the right. Here the cirrhosis was extreme. Dr. Adami compared this development of multiple overgrowths of gland tissue in the cirrhotic liver to the more frequent development of adenomata in the cirrhotic kidney. In both organs there occurred a cutting off of portions of the gland by bands of interstitial fibrous tissue followed by proliferation of the gland tissue and the development of adenoid neoplasms.

Thus microscopical examination fully confirmed the conclusions arrived at by Dr. Finley in his study of the case during life, and explained the clinical history which he (Dr. Adami) had heard that evening for the first time.

On Two Different Conditions of the Mitral Valve Giving Rise to Presystolic Murmur.

Dr. ADAMI exhibited two hearts. The first case was one of extreme mitral stenosis from a patient in Dr. Stewart's wards at the Royal Victoria Hospital. The patient gave the frequent history obtainable in cases of mitral disease, namely, that of attacks of acute rheumatism. Here there had been an attack fifteen years ago and another in January, 1892. There had been a premature labour at the eighth-month six years ago, with evidences of albuminuria and dropsy. From this there had been only partial recovery, the slightest cold sufficing to bring on swelling anew in the lower extremities. In August last pulmonary trouble supervened and oedema became constant. There was dyspnoea and profuse expectoration. The condition became more severe and the patient was admitted into hospital upon January 6th.

On admission, not to enter into full details, the pulse was of fair tension and regular, the arteries felt a little sclerosed. There was a diffuse impulse in the fourth and fifth spaces, and a strong impulse was felt in the fifth inter-

space at the nipple line. First sound rather muffled, second fairly clear. Both systolic and presystolic murmurs were heard traceable towards the axillary line, with a diastolic blowing murmur at the apex, heard, however, much better along the left border of the lower half of sternum. As the autopsy showed this murmur probably originated in the right heart.

The heart was of great size, 450 gm., right auricle greatly distended, passing well (4 cm.) over the middle line. The distended right ventricle formed the whole anterior surface of the heart below and to the left, the left ventricle being completely out of sight, and the apex lying close upon the seventh rib in the anterior axillary line. Evidently, therefore, the impulse felt during life in the fifth interspace at the nipple line must have been due to the systole of the right ventricle.

There was, as the specimen showed, extreme stenosis of the mitral valve with thickening and sclerosis of the aortic valves, but by the usual test these last showed themselves still competent.

The stenosis of the mitral was so extreme that the slit-like opening was only one centimetre in length. The valves were markedly fibroid. The aorta showed patches of atheromatous degeneration that had not passed the fatty stage, most frequent in the abdominal region. The patient was only 36 years old.

The second heart was from a youth of 16 years of age, also an occupant of Dr. Stewart's ward. In this case the history was more especially one of chorea. There was one attack at the age of seven which lasted for two years, another of a month's duration when he was twelve. The only, rather doubtful indication, of acute rheumatism obtainable was that the last illness began in May, 1894, with pain and stiffness in the joints and marked swelling of the finger joints lasting for one day; with this there was shortness of breath, which steadily became accentuated.

On admission on January 22nd the patient was ex-

tremely anæmic, poorly nourished and feeble. The cardiac impulse raised the whole side of the chest, extending for five inches from the third to the seventh ribs. The apex was recognizable at the seventh rib, four and a quarter inches from the mid-sternal line. There was a roughish systolic murmur at the apex heard all over the anterior aspect of the chest and back. At the back it could be heard as low as the line joining the crests of the ilia. At the fifth space there was a rough presystolic murmur not transmitted. Presystolic thrill plainly felt at the level of the fourth rib.

On opening the chest the heart was found to extend 5.5 cm. to right of median line and 10 cm. (four inches) to the left. The apex in the sixth interspace. The right auricle was greatly distended. The anterior aspect of the ventricular region was formed about equally of right and left hearts. Left auricle fairly flaccid, but had evidently undergone so much previous distention that the auriculo-ventricular groove was almost eradicated and the walls almost parchment-like and fibroid rather than muscular, the appendix appearing not so much as a prolongation, but as a diverticulum off at right angles to the auricular cavity. With this the mitral orifice was found much larger than normal. In the adult this orifice should admit roughly three fingers; here in a boy of sixteen it admitted five, and was 11.75 cm. in circumference at the narrowest part. The valve flaps were moderately sclerosed with very slight roughening and vegetation. The chordæ tendineæ were thickened, the papillary muscles large and fibroid at their apices. The left ventricle presented extreme dilatation. The aortic cups showed small wreaths of old vegetations below the line of apposition. They were, however, quite competent. Thus this case differed from those of Dr. Austin Flint. (*Lancet*, Jan. 27th, 1883.) The right heart presented no great abnormality. Contrary to what was the case in the previous heart, here the tricuspid orifice was above the normal capacity.

Commenting on the cases Dr. Adami said: "In these two hearts, apart from other points of interest, we have the history of well-marked presystolic murmur associated with the diametrically opposite conditions of extreme stenosis and of dilatation of the mitral orifice. In the one case the stream of blood pouring through from the left auricle into the ventricle at the end of ventricular diastole must have been peculiarly fine and have passed through with considerable force; in the other there must have been a large stream passing slowly. In the former the wall of the auricle was distinctly of a muscular type; in the latter the muscle was thinned and weakened. The edges of the mitral orifice in the case of stenosis were smooth, in that of the dilatation were slightly roughened.

"These two cases then, so far as they go, show that the presystolic murmur is not dependent upon the absolute size of the orifice, and I would go so far as to say that with such extremes it cannot be dependent even on the relative size. They show also that the condition of the edges of the orifice, through which the stream of blood pours, must only play a secondary part; and, in short, if we accept the view that the presystolic murmur is auricular systolic, due to the pouring of blood into the ventricle in consequence of the contractions of the auricle, they make it extremely difficult to assign a cause for its development. The one point in common in the two cases is disease of the mitral valve. That, so far as I can see, is the only common ground."

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THE ADIRONDACK COTTAGE SANITARIUM.

The tenth annual report of the Adirondack Cottage Sanitarium just issued is a record of unpretending but highly important and successful work. During the year ending the 1st of November, 1894, 148 patients were treated in the sanitarium, 75 of whom were still in residence at the end of the year.

The report concerning the remainder, 73 in number, is as follows:

CLASS I.—13 PATIENTS WHO REMAINED THREE MONTHS OR LESS.

Condition when admitted.		Condition when discharged.	
Incipient cases.....	2	With disease arrested.....	2
Advanced cases.....	4	" improved.....	3
Far advanced.....	7	" unimproved.....	7
With doubtful evidence of phthisis.....		Died.....	1
Total.....	13	Total.....	13

NOTE.—Number of patients who gained weight, 5; average gain, 4 lbs.
 " " lost " 4; " loss, 3 "
 " " not weighed, 4.

CLASS II.—60 PATIENTS WHO REMAINED FROM 3 TO 38 MONTHS. Average residence, 11 months and 29 days.

Condition of patient when admitted.	Apparently cured.	Disease arrested.	Improved	Unimpr'v'd or failure.	Died.
8 incipient cases..	5	2	1
30 advanced "...	7	10	8	4	1
22 far advanced....	..	8	8	3	3
60 Total.....	12	20	17	7	4

NOTE.—The death in the "advanced" class was complicated with "pneumonia."

The above figures show conclusively the value of the treatment carried out at the Sanitarium. This consists in open air, hygienic and climatic influences, together with the employment of a modified tuberculin in suitable cases.

Eight cases were treated to a conclusion with tuberculin during the year. In three of these cases the disease was advanced and in five far advanced on admission. When discharged three were apparently cured and in three the disease was arrested, while two died. There remained under this treatment sixteen.

Dr. Trudeau in his report says: "Ten years ago the Adirondack Cottage Sanitarium was but an untried, and to many, a visionary scheme. To-day the institution stands an accomplished fact. It is a little village of small cottages and other buildings—a village with its independent water supply, its barns and stables, its main building, its library, its infirmary for the very sick, its recreation hall, and it offers to consumptives of moderate means as good a chance for life as can be purchased anywhere at any cost. Its good cause and its friends have been from the first its sole assets, and yet from these each year enough has been realized not only for its support, but for its steady growth and development as well. A free bed fund of \$14,000 has been accumulated, to the interest of which is added each year all contributions received for this object, and through which it gives aid to the very poor, and \$25,000 have been put aside toward a permanent endowment fund.

"For ten years the Sanitarium has held out a helping hand to a class of patients for whom little or nothing is ever attempted. It has shown that something can and should be done for the consumptive. Let us hope that still more is to be done in the near future."

It is with great pleasure and thankfulness that we place before our readers this account of an institution that is accomplishing such a great work. The excellent work accomplished by Dr. Trudeau has far-reaching effects. Many of his patients are not only enabled to live and work, but

they acquire an education on how to live and how to prevent and stay the progress of pulmonary tuberculosis. They go forth from the Sanitarium missionaries, preaching the value of pure air in the prevention and cure of disease. They are themselves living examples of the truth of the doctrines they preach.

We cannot conclude our reference to the Adirondack Sanitarium without calling attention to the needs of the institution. It is supported solely by voluntary contributions, and we are sorry to say that Canadians have not as yet given anything towards it. This is regrettable, seeing that so many of our citizens have been treated there. It is to be sincerely hoped that some of our wealthy people will contribute towards the support of an institution that has done so much to help many of our unfortunates.

THE CANADIAN NURSES' ASSOCIATION.

In December, 1894, we made a few remarks concerning the progress of the Training School for Nurses in connection with the Montreal General Hospital. It is now our pleasant duty to chronicle a still further advance, namely the establishment of an Association which will bring the nurses still more in touch with one another, and also with the Doctors. We trust the Association will help to elevate the profession of nursing—for the "old-time" nurse—one incapacitated by age, feebleness or ignorance has passed away. The forlorn train of sick-room spectres has disappeared before the bands of the young and hopeful, to whom life has not lost its charm, who are ready to devote themselves in their youth and strength to this work of humanity. It is no light task they are called upon to perform. There is, perhaps, no calling in life which demands a more constant exercise of all the Christian virtues than that of nursing. In nursing, ample opportunity may be found for the use of even high intellectual attainments. When we remember that the care which a nurse gives her patient will often decide the question of life or death, we invest

her calling with a new dignity. Yes, the profession of a nurse is a noble one, for it is no light thing to be able to lessen the amount of human suffering. The assurance that she can do this will stimulate the true nurse to qualify herself by careful study and practice for the best performance of her work. But is her training complete when she leaves her hospital? Oh, no. She has only learned the rudiments there, she is to continue her education among the sick, the suffering and the dying. It is in the sick-room when far removed from her Alma Mater, that she will first know what it is to be a "Trained Nurse." She will then realize her responsibility and feel how little she really knows and how much she has to learn. It is then she will gladly turn to the Nurses' Association, knowing that there she will meet with those who can help her—with those engaged in the same work, and in consulting with them and reviewing the difficulties and responsibilities will gain fresh courage and renewed energy for the future. With the view of providing for the needs of the graduate nurse, after she leaves her hospital, and also of bringing her within easy access of the doctor, a meeting was held on March 25th, when it was decided to open a directory for nurses. A committee was formed from among the graduates and Mrs. Burch (177 Mansfield Street) was appointed registrar. The first day twenty-six names were placed upon the books.

Already the directory has been found a great convenience to the members of the medical profession practicing in the city, and we trust in time our confrères in the country will also benefit by its establishment. The association is still in its infancy, but at no distant period we expect to see a club-room, containing a good library well stocked with books of reference. We hope to hear our nurses read and discuss papers in connection with their profession. We want them to keep abreast of the times, and as new methods of treatment are continually being introduced they should have an opportunity of hearing and reading

about the latest improvements with reference to their work, and thus fit themselves to take their proper places at the doctor's right hand. We feel that this association is filling a long felt need, and it has our best wishes for a successful future.

THE INFLUENZA EPIDEMIC.

The present epidemic of influenza is gradually subsiding, not only on this continent, but also in Europe. In its wide distribution the present outbreak resembles more closely the first epidemic of the disease in 1890, than the annual recurring outbreaks in the intervals. The mortality from this disease would appear to be very much greater in England and the Continent than on this side of the Atlantic. In Scotland, particularly, it has been very prevalent and very fatal. In regard to treatment little has yet been learned. The experiments recently conducted in Germany with regard to an antoxine treatment have not as yet developed anything important.

Obituary.

DUJARDIN-BEAUMITZ.

Dujardin-Beaumitz, the well-known French writer on general therapeutics, died at his home in Paris on the 16th of February.

DR. GEORGE WRIGHT.

The news of the death of Dr. George Wright, late of Toronto, will be learned with deep regret by very many in Canada. At one time he was a leading practitioner in Toronto and for many years occupied a prominent position on the teaching staff of the Toronto School of Medicine. He also took a leading part at many of the meetings of the Canadian Medical Association in the seventies. He was a clear, able and forcible speaker.

DR. D. HACK TUKE.

Dr. D. Hack Tuke, the noted alienist, died at his home in London on the 6th ult. His name is well known in Canada since he first pointed out the backward state of certain asylums in this Province. His timely and well-directed exposure of the incompetency of the officials in these institutions has borne fruit. Although there is still room for improvement, there is a marked change for the better since Dr. Tuke paid his memorable visit.

Dr. Tuke was a hard worker in his chosen field and has done much, not only in Canada, but elsewhere, to advance the scientific treatment of insanity.

DR. JAMES HEWITT.

At a regular meeting of the New York Otolological Society, held at the Academy of Medicine last January, the following resolutions were unanimously adopted, and incorporated in the minutes of the Society.

The New York Otolological Society desire to place upon

its minutes the sense of the loss it has sustained in the death of Dr. James Hewitt, one of its founders.

Although but a young man at the time of his death, Dr. Hewitt had already attained a prominent position in his profession, and had he lived, would undoubtedly have become one of the distinguished aurists of his time.

With a singularly retiring and quiet nature, he had a most genial and cheerful disposition and a simplicity of bearing and kindliness in speech and manners that endeared him alike to his friends as well as his patients.

Resolved,—That these resolutions be printed in the medical journals of this city, and that a copy of the same be sent to the family of the deceased.

Committee, Graham Bacon, M.D., J. B. Emerson, M.D.

Dr. Hewitt was one of the founders of the Association.

Medical Items.

—Dr. K. N. Fenwick, of Kingston, has donated the sum of \$2,500 to the General Hospital of that city for the erection of a new operating theatre.

—There is a great decline in the number of students attending the different Scotch Universities during the present session as compared with previous sessions. In Edinburgh the decrease, as compared with 1889, amounts to 531, and in Glasgow to 200.

—A society has been formed by the Medical Faculty of the University of Kieff, having for its object the repression of infectious diseases. A fund has been raised which will for the present be applied to the investigation and application of the antitoxin treatment in diphtheria.

—The beautiful first court of the General Hospital at Vienna is graced with several statues of eminent physicians and surgeons. It has been decided to add to their number memorials of three of the most eminent men in medicine of the present century, viz., Skoda, Rokitansky, and Billroth.

NEW METHOD OF STERILIZING ABSORBENT COTTON.—A piece of the cotton is taken and wrapped about the extremity of a probe. This is dipped in an alcoholic solution of boracic acid and then set on fire. The alcohol burns and the boracic acid prevents the cotton becoming carbonized. Five seconds is sufficient for the process; when the flame becomes coloured a bright green it is extinguished. The cotton remains unchanged, but both it and the holder are completely sterile.—Hermoyez et Helme, *La Presse Médicale de Paris*, Feb. 2, 1895.

—The influence of a pure water supply in diminishing the number of cases of typhoid fever is strikingly shown in the results attained by the French Military Surgeons

In 1887, no less than 9,150 cases of this disease were reported in the French army. As the direct result of improved water supplies to barracks and camps, there has been a steady diminution in the number of cases of this disease up to the present. In 1894 only 2,788 cases were reported. No better example of the influence of a pure water supply in the prevention of typhoid can be found than in Vienna. Previous to the new supply typhoid was very frequent, but now it is a comparatively uncommon disease in the Austrian capital.

—The foreign and colonial edition of the *British Medical Journal* is now printed on a better and thicker quality of paper. This will prove a great boon to the many readers of this edition. If the advertisements were printed in smaller type, it would allow the publishers room for the use of larger type in the reading matter. Such a change, we are sure, would also be very acceptable. The object of specially small type and thin paper is to save postage. The same end would be gained by printing the advertisements in ordinary type. Enough space would be gained to allow of the same quality of paper as is used in the edition for the home readers and the type of the reading matter could also then be made the same throughout.

—For many years the College of Physicians and Surgeons of Quebec have appointed assessors to visit and take part in the examinations of those students who intend qualifying for the practice of their profession in this Province. Every year they have reported on the character of the examination, but we believe none of these reports have reached the profession. Recently these reports have been much more full and complete than in former years, and it is the bounden duty of the Council to make them public. The profession have to pay both Council and assessors for the work they do, and of necessity they should know what they are paying for. The minutes of the meeting of the Council held last September has just been issued in French (only), but it contains no account of the character or extent of the examinations held by the different Universities.

THE BLOOD SERUM OF THE HORSE AS A REMEDY FOR TUBERCULOSIS.—Dr. Paul Paquin, Professor of Bacteriology in the State University of Columbia, and member of the State Board of Health of Missouri, has, as we learn from the New York *Medical Record*, been experimenting with the blood serum of the horse in the treatment of tuberculosis. Having convinced himself that the horse is naturally immune against tuberculosis, he has for some months been using the blood serum of selected horses, carefully injecting the serum under the skin of patients suffering from tuberculosis. Dr. Paquin maintains that the horse being naturally immune against the disease, the blood can be used direct without any artificial immunisation. The serum is said to have been used in about fifty cases with almost uniformly satisfactory results.

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