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## Original Communications.

*Treatment of Meningitis*, by William Fuller,  
M.D., Professor of Anatomy, University of  
Bishop's College.

Gentlemen, with a view of provoking a discussion on an important subject,—the treatment of cerebral meningitis, I beg to submit some observations made in a few cases which I am sorry to say were not preserved by a daily record at the time. I do not intend to state more than the impressions derived from a moderate experience, and the results in general of certain procedures in treatment.

The stages of this disease are described as, 1st, that of cerebral excitement; and, 2nd, coma as the result of effusion, causing compression of the substance of the brain and death from general paralysis. In my experience the P.M. examination revealed in the great majority of cases not what I should expect from the theory of these stages. It is observed in only a comparatively few instances that the cavities of the brain are greatly distended by effusion, while in the majority only a small quantity of fluid is found in the ventricles and a semi-solid lymph is seen in the sub-arachnoid spaces, particularly at the base, which was insufficient to account for the coma as resulting from compression. In one case, which exhibited all the signs of compression from effusion, and the fontanelle was very prominent, a trocar was thrust into the lateral ventricle two days before death and no fluid escaped, nor were any other symptoms produced by the operation.

In reflecting upon this, and, also, by observing the effect of remedies in this condition, I am led to conclude that coma, in most cases, is not a paralysis resulting from interference of the nerve centers by *compression*, but by *irritation* which may be either at a *distance*, or, in the meninges themselves, *centric*. The former peripheral irritation—*spurious*, the latter centric—true meningitis—between which it is often very difficult to distinguish, and impossible, unless some distant irritation, as worms, &c., is discoverable as a cause. As to the results of irritation on the

different organisms, they may be arranged as follows:

On Brain producing	1 Excitement	2 Coma
“ motor-nerve “	1 spasm	2 paralysis
“ vessel “	1 pallor	2 flushing
“ nerve of sense “	1 pain	2 anæsthesia

and these opposing conditions all resulting from the same cause—irritation, directly or indirectly applied to the nerve centers—are amenable to the same remedies. The nerves distributed to the body are mere projections of the brain, and as physiologists, we are aware that excitement applied whether central, or peripheral, induces a similar condition throughout the whole tract, as well as in associated centers and their connections, in a minor degree. This explains why a peripheral irritation is frequently the cause of central inflammation, and, consequently, the doubt as to whether a case is one of spurious or true meningitis. If the patient recovers most likely it would be pronounced *spurious*, if he dies there is no doubt but this was a *bona fide* case, and P.M. observation reveals the fact. There is no kind of satisfaction in thus making a diagnosis from the final result. By way of illustration I will give a short case: A child, four years of age, of delicate appearance, had been indisposed and listless for a couple of weeks, frequently coming in from play and complaining of being tired and lying down; she got worse, complained of headache, and vomited several times, had no appetite, bowels rather confined; when I saw her she looked pale in general but occasionally a flush passed over the face. She got some worm powders, and a mild purgative, with no benefit or sign of worms. I gave 10 gr. doses of potass bromide every three hours, and again every two hours for a day or two, with little or no improvement in the symptoms. On the fourth day she was much worse in appearance, was very drowsy and upon wakening immediately relapsed into sleep, which was deep, and breathing slow; vomiting ceased and there was frequent flushing of the face, the eyes were half open and divergent squint, pupils dilated moderately, pulse ranged about 120, and temperature 103° during this period, more or less varied by bathing and wet cloths applied to the skin. At this juncture I called in Dr. Rodger, who concluded with me that we had a case of meningitis to deal with, and we gave

an unfavorable prognosis. This child was given quinine, in 5 gr. doses, to lower the temperature; whenever it should rise above the ability of wet cloths to the body to maintain it below  $101^{\circ}$ ; morphia was given in  $\frac{1}{2}$  gr. dose every two hours, whenever there was flushing of the face, cold extremities, or varying or dilated pupils, which symptoms generally occur together. She improved rapidly, and in a week was well enough to go about. Was this meningitis? could any one have denied it on the fourth or fifth day? But I have been told that this was one of the spurious cases, why, *because it recovered?* Now, this is one out of several that I have seen of this kind, and I would like to be informed if there is any other means of distinguishing a true from a spurious case of meningitis beside death, which diagnostic symptom comes too late to be of any avail as a guide for treatment.

Looking at the cause as one of irritation it appears to me that the indications are the same whether we have to deal with ordinary actions in the body stimulating an excited nerve centre, or whether we are dealing with extraordinary actions in the body exciting a healthy nerve centre; but as centre and periphery are so nearly related, disease at one end of a nerve induces also a like condition in the other, as, for instance, a thorn in the foot may produce central irritation of the whole nervous system; so also hyperæmia of the nerve centre causes spasms and inflammation at the peripheral extremity of the nerve. Accordingly we should infer that medicines which soothe the nervous system would be beneficial in whatever situation the irritation might be, whether it is to soothe an excited nerve centre so that ordinary actions in the body should not irritate it, or whether it is to modify violent peripheral action in order to prevent it from exciting a nervous centre which is not yet in a state of inflammation. Should these premises be satisfactorily established it would place the matter of treatment on a sound footing, whether we were dealing with a case of "spurious" or true meningeal inflammation. We would abjure all irritating medicines such as purgatives, as such are commonly used as derivatives, unless at the outset to make sure that the bowels were unloaded, or for the removal of worms which being greater and continued irritations, are to be removed preparatory to a period of the perfect

rest which it is to be our after endeavor to ensure. I should say that a mild purgative at the outset would be proper, but continued purgation, with a view of derivation from the head, I think is wrong and only tending to produce the condition which we desire to remedy. In a case of cerebro-spinal meningitis, which recovered, a child had no stool for eighteen days, then twelve, then eight days successively, after which the bowels acted regularly. The abdomen was flat and no evil resulted in the delays. Unless some special symptoms arise in the abdomen which might indicate an occasional purgative I am in the habit of paying very little attention to the bowels. Of the actions of medicines which have a soothing influence over the nervous system, I am most acquainted with opiates on this disease. Bromide of Potassium has not appeared to me to possess much power, though I have given it in 10 to 15 gr. doses, repeated every two hours, to children, and I have alternated it on different days with morphia with results always apparently in favor of the latter. Let us now notice the action of morphia on the several symptoms of the disease, especially one, in which this medicine is supposed to be contraindicated. Prominent among these is coma.

In the coma of compression, morphia could be of no benefit, nor could it do much harm, since death is always, I may safely say, the result; but it is otherwise in the coma of irritation, which is frequently mistaken for that produced by effusion. It appears to be of the same nature as that which occurs after a convulsion in which we frequently administer morphia or chloral, in anticipation of succeeding spasms, in order to intercept them. It is distinguished from that of compression by being accompanied by flushings of the face and spasmodic movements of the eyes or limbs, or an unequal distribution of paralysis or spasms; while effusion by compressing the nerve centers causes general depression of the vital actions, indicated by steady but slow movements, and general pallor of the surface and a lax condition of the general muscular system. I will give one or two illustrations of the coma of irritation which was relieved by the use of morphia. A girl seven years of age, who had been ill for eight days with all the symptoms of tubercular meningitis, was in a perfectly comatose condition. The pupils were widely dilated, insensibility of the eyeball, the respiration slow

and snoring, incapable of being roused by a pinch or loud calling, and could swallow very indifferently, so that a teaspoonful of water poured into the mouth caused her to choke before it was swallowed. I gave her  $\frac{1}{2}$  gr. morphia, and in two hours she was capable of giving a sensible answer to questions. This was observed by my friend Dr. Rodger, as well as myself, at different times during her illness. She died in 4 or 5 days subsequently, after she had ceased to take morphia, and was supposed to be improving until symptoms of paralysis of the pneumogastric nerve set in suddenly, indicated by very slow breathing, rattling of mucus in the trachea, very rapid pulse, and final suffocation,—a paralysis due, probably, to irritation, as in the case of the coma, or, as I have seen take place, in limbs, in other cases. A child two months old was found comatose, pale, breathing about 4 or 5 times per minute, with an occasional spasmodic action of the diaphragm. The abdomen was tense and knees slightly drawn up, from which I concluded that it was irritation in the abdomen. I gave small doses of morphia every  $\frac{1}{2}$  hour until the breathing got somewhat better, then left instruction to give two drops of paregoric every hour until relieved. I was surprised next morning to see the child quite recovered. It had two or three slight attacks during the night which was relieved by the paregoric. This case was, of course, only irritation of the brain, producing coma, and was peripheral. I find, in referring to the notes of a case of meningitis, that in two instances, hemiplegia was relieved by morphia, as well as the spasms that preceded it. In this case there was very little serous fluid in the ventricles, but a large quantity of organized lymph at the base of the brain.

I have used morphia in the convulsions in hopeless cases, sometimes rendering the patient conscious for a time, but in one case the convulsions continued after repeated and large doses, though at first it prevented them for a time. I had no P.M.

During the epidemic of cerebro-spinal meningitis, which occurred here about four years ago, I used in all my cases almost morphia alone, with the view of relieving the pain and subduing vascular disturbance and spasms, with, I think, good results, and no evils that I observed. I lost four cases out of ten.

Belladonna appeared to me to increase the

symptoms, and, I thought, caused a convulsion, though given in a very small dose, 2 gtt. of tincture.

Quinine lowered the temperature without creating or increasing head symptoms that I observed.

Purgatives always appeared to me to make the patients worse.

Leeching appeared to have saved one case and bloodletting seems to be a reasonable remedy, since, by relaxing the vascular system, it causes an equal circulation of blood throughout the body, the same as is obtained by morphia.

Hot applications to the head are soothing and relieve the headache. I have applied stupes and, what is better, bathing the head with warm water; patients who were old enough to express themselves said it relieved and soothed them and gave refreshing sleep, and it also diminished the flushings of the face. Cold, especially the ice-cap, as generally used, caused shuddering, and was disagreeable. I think, as a rule, that what is pleasant to the feelings of the patient, both in medicine and surgery, is right, and that the contrary is wrong.

The treatment which I adopt in cases when I suspect meningitis is, 1st. To regulate the temperature, that is, keep the patient cool but equally warm all over. 2nd. Unload the bowels by a mild purgative, remove worms, &c., if any cause of irritation is present. 3rd. Quietude and soothing medicines, the use of which is indicated by flushings and irregular cutaneous circulation, which are the premonitory symptoms of spasms or coma, should the latter symptoms, spasms or coma supervene, I increase the dose. 4th. Frequent bathing the head with warm water.

The points which I wish to bring out for consideration are, 1st. That coma is, in most instances, not due to the pressure of effusion, but to irritation. 2nd. That opiates are not contraindicated in meningitis, even when coma is present, or threatened, if there are irregularities of cutaneous circulation or spasms, and that opium actually, by relieving irritation, dissipates the coma. 3rd. That warm water is more agreeable, more soothing, and more efficacious than ice-caps.

531 Wellington Street, Montreal, July, 1877.

## Progress of Medical Science.

### ON THE MANAGEMENT OF THE BOWELS IN ENTERIC FEVER.

By Dr. Thomas W. Grimshaw, M.A., Physician to Steevens' and to Cork Street (Fever) Hospitals, Dublin.

The question of the management of the bowels in enteric fever has been one upon which different opinions have prevailed among the highest authorities. Thus Dr. Todd says: "Restrain diarrhœa and hemorrhage in typhoid fever, and, when you have fairly locked up the bowels, keep them so. Patients will go for four or six days, or even longer, without suffering inconvenience from this state of constipation." Other writers, Drs. Johnson, Gardiner, and MacLagan, recommend "laxatives."

Dr. Murchison says:—"When there is constipation at the commencement of the attack, it is well to commence the treatment with a small dose of castor-oil, or rhubarb in peppermint water; and when the bowels are confined at a later stage, I am in the habit of prescribing, every second or third day, one or two teaspoonfuls of castor-oil, or a simple enema. But when constipation succeeds to severe diarrhœa, the best practice, I think, is to abstain from interfering for four or five days, and then only to prescribe a simple enema, or one teaspoonful of castor-oil."

The practice of using purgatives in fevers generally is considered by Dr. Hudson, who says:—"Among the worst cases admitted into hospital are those of patients who have been dosed with salts by themselves or their friends."

This sentence was written by Dr. Hudson in 1867, or now nearly ten years ago; it was repeated by him in the new edition of his work in 1868, and yet this dangerous practice of administering violent purgatives to patients at the commencement of fever is pursued not only by the patients and their friends, but even by some practitioners of medicine in Dublin and elsewhere, who ought to know better. I believe the injudicious use of astringents at the commencement of enteric fever is almost, if not quite, as injurious as the administration of purgatives. The administration of a violent purgative to a patient suffering from enteric fever in its early stage has this advantage to the patient over the use of an astringent—viz., that it effectually prevents his going about, and soon drives him to bed or to hospital, where he has at least some prospect of rest and quiet, and generally of more judicious treatment. The astringent treatment, on the other hand, has generally the effect of enabling the patient to go about a little longer, and thus more quickly use up his failing strength, gradually drifting him into a state of established disease, which is certain to be of long duration, terminating in

tardy or imperfect convalescence, and not infrequently in death. The number of cases of enteric fever which have come under my notice, where injury has been done by the injudicious use of astringent or purgative medicine, is almost incredible.

[The following case is given, amongst others mentioned as examples, by Dr. Grimshaw.]

A lad aged about sixteen, admitted to Steevens' Hospital, stated that "he had had a looseness of bowels; went to a doctor who *stopped* it; he never was bad till his bowels *stopped*." He then came to Steevens' Hospital, where he was found to have a swollen tympanic abdomen, tender *all over*, dry brown tongue, the characteristic rash, and all the symptoms of severe enteric fever of about fourteen days' duration; his bowels had now been confined for a week. He was ordered one teaspoonful of castor oil, with six minims of tincture of opium, and if action of the bowels did not take place in a few hours, a simple water enema was to be given. The enema was not required. The oil acted well, effectually relieving the tenderness and distension; the amount of fecal matter passed was so large and so offensive, and followed by such considerable depression, that some doubt was entertained as to the ultimate result to the patient. He made a very slow recovery, the iliac tenderness remaining much longer than usual.

It is by no means easy always to diagnose a case of enteric fever in its earliest stage; but no one should ever venture upon active treatment until the nature of the disease has been made out. The frequency with which a "looseness of the bowels" or a "gastric attack" has been treated simply *as such* by astringents in one case, or "good clearing out" in the other, without any careful attempt having been made either to determine the cause of the looseness, or the nature of the gastric attack, is a disgrace to the profession of medicine. In many instances, this looseness of the bowels, or gastric attack, is the commencement of a serious attack of enteric fever, which, if carefully diagnosed and treated accordingly, might have terminated favorably.

We know that patients walk about at the commencement of and not infrequently during the greater portion of the course of an attack of enteric fever, and some persons have excused an error of diagnosis upon the ground that the patient came to their house to consult them, and had *only* a furred tongue, a quick pulse, and had been in the same state for a week. It may be the result of my peculiar training, but I must say I would assume that a patient with a quick weak pulse, furred tongue, loss of appetite, and who had been in the same state for a week, had enteric fever, unless there was good cause to believe to the contrary. If I find, on enquiry, that he had been chilly, had vomiting, pains,

and either constipation or diarrhoea, and irritation of the urinary organs, I would consider my diagnosis almost certain, even before I had an opportunity of testing the temperature and examining for an eruption, or ascertaining the nature of the discharge from the bowels. Careful observation has convinced me that some practitioners stop short after the discovery of the quick pulse and furred tongue, and only inquire for a headache or for the state of the bowels. If the bowels are confined, the inevitable purgative follows, which is only regulated in intensity by the length of the constipation and the habit of the patient. If the bowels are too free, then as certainly follows the astringent. In a few days more the patient is on the brink of the grave from enteric fever. In other instances the practitioner explains to the patient or his friends that he has "only got gastric fever." Now this is a course which should be scorned by every educated physician. He should, in every case, state, emphatically and distinctly, that the disease is *typhoid fever*, which is the term the public are familiar with as the title of this very severe and treacherous form of disease. I believe it is scarcely excusable for a physician to mistake enteric fever for merely gastro-intestinal catarrh, inasmuch as in a large majority of instances a catarrhal condition of the mucous membrane occurs at the commencement of enteric fever, and should be taken as pointing to an impending attack of that disease.

Now, having pointed out the errors of treatment which so often follow an erroneous or incomplete diagnosis, there still remains in my opinion, another source of danger, and it is this—that the diagnosis having been made correctly, some persons deliberately and advisedly administer powerful purgatives and astringents for the cure of the disease; in the first case with the view of eliminating the specific poison of the disease, and in the second, with the intention of sustaining the patient's strength.

It appears to me to be extremely irrational to expect that in a case where the bowels are already free, possibly too free, that any additional eliminative power will be gained by the administration of a stimulant to an already over-acting organ; and, further, we should not forget that we have an irritated, inflamed, and probably ulcerated intestine which is sadly in want of rest to enable it to return to health. The prescriber of astringents, on the other hand, also forgets the inflamed and ulcerated intestines, and that by the use of astringents he is retaining irritating and decomposing matters in contact with the ulcers, thus increasing their irritation, and promoting the tendency to septic poisoning and deep ulceration, which are the great dangers in enteric fever.

Now, having so severely criticised the practice of others, I may be fairly expected to

mention what practice I pursue myself, and consequently what I recommend. It is difficult to treat of *one* condition of a disease without considering the treatment of other concurrent states.

In the first place, I consider it essential to the fair progress of a case of enteric fever that the bowels should be more frequently moved than in health, and that the motions should be plentiful. I consider that the bowels may be moved with advantage to the patient four times in twenty-four hours, and should never be allowed to remain confined for more than forty-eight hours, and not so long if any symptoms of distension or pain set in.

The measures I take to promote these objects, in many instances are confined to mere regulation of diet—and for many valuable hints upon this point I am indebted to my friend and former colleague, Dr. H. Kennedy, who has published an interesting paper on this subject in the *Practitioner*. Thus, if the bowels are moved more than the required number of times without the diarrhoea being a severe symptom, I find that feeding the patient on boiled milk alone will be sufficient—if not, the addition of saccharated lime water will probably prove effective. If these remedies do not keep the diarrhoea within reasonable bounds—say under six motions in the twenty-four hours—I employ sulphuric acid in the proportion of 3 3 to an ʒ 8 mixture, one ounce to be taken every three hours. This I generally give as an addition to a mixture containing quinine, which I almost invariably employ in large doses in treating enteric fever. Should this fail I add morphia or tincture of opium to the mixture in small quantities. I find that in cases where the boiled milk treatment is employed early, little if any astringent medicines are required. I never employ beef-tea when there is a tendency to excessive freedom of the bowels. In cases of extreme diarrhoea I have employed the lead and opium pills of the Pharmacopœia in 4 gr. doses every fourth hour with great benefit. At the same time I employ linseed poultices over the abdomen, and stupes of turpentine or mustard where pain or tenderness is much complained of. The treatment of constipation is a more easy affair. I may say for this purpose I employ a single drug—namely, castor-oil, and usually muzzle it with opium. I seldom give more than a teaspoonful for a dose, and in many cases but half that amount. In the early stage of the disease, when I find the bowels have been confined for some days before the patient came under treatment, I at once give a dose of castor-oil. This not only benefits the patient, but in a doubtful case assists the diagnosis by often producing a characteristic evacuation. Great caution must always be observed in giving meat in early convalescence, as it is likely to produce diarrhoea. I prefer here to begin with chicken-

broth, then chicken, and lastly mutton. If a rise in temperature occurs after a change of diet, diarrhœa may be expected, and should not be waited for; the meat should be at once discontinued, and the milk resumed. In cases of hemorrhage I have found ergot the most useful remedy, and so far have never lost a case of enteric fever by hemorrhage.

I believe the main point to be attended to in the management of the bowels in enteric fever is to keep them free, but not too free, and to avoid, as much as possible, purgatives or astringents.—*Dublin Journal of Medical Science, Feb. 7, 1877, p. 128.*

### ON ALCOHOLISM.

By Dr. SAMUEL WILKS, F.R.S., Physician to Guy's Hospital.

Although alcohol may not be directly a food, yet indirectly it might be so; for, if two men be taken, and one have nothing whatever to eat, and the other have alcohol given him, I presume the latter will remain alive the longer. It must certainly be oxidised; and persons who take a large quantity of spirits grow fat, as we shall presently see.

If, however, we do not understand its physiological workings, yet we can see the effects of it on the system for all practical and clinical purposes. In the first place, does alcohol appear to be a necessary food? There can be but one answer. There are many nations who do not take it, and some whose religion forbids its use. Is it necessary for us? Well, you know many in this country who do not take any. It is not a necessity then; it is for this we have to contend, and, if I can impress this on you, the hour will not be wasted. English people are, however, too often brought up with the idea that it is a necessary article of diet. Patients will take their wines and spirits even when they are doing themselves harm, and, if you object, will ask, "What must they do?" You tell them to do without them; to which they will reply that they must take something. I want you to get it thoroughly out of your minds that there is any *must* in it, and start afresh with the idea of its non-necessity.

Let children always live and grow up without alcohol; in after years, when we pass an artificial life, there may be reasons for taking it; but remember, even then it is not an absolute necessity. Start with this principle; let your patient, even an adult, try to do without it, and then, and if circumstances seem to suggest it, let him have his glass of wine. I do not say that a number of persons can do entirely without any in our present mode of living, but let us regard alcohol in its true light, as a luxury, as we do tea, tobacco, &c. If we do this, we are safe. I cannot recommend you to live entirely by rules and natural laws, and give up

all the conventional luxuries of life, for then we should dismiss more than half the dishes from our table. I do not want this to come about, and, for my own part, I like a glass of wine or a cigar as well as other people. There is in today's paper an account of some vegetarians who never eat any meat. I do not advise you to follow their example, but it shows you that meat is not essential to life. We might, I have no doubt, live on what Dr. Johnson states Scotchmen and horses do, viz., oats.

What are the effects of a small dose of alcohol? It is said to be stimulant. If a man be jaded and tired, it gives a sort of temporary support; a little beyond this point and he is depressed, the stimulant effect lasting only for a time. There is a dilatation of the vessels and warmth of the surface taking place; at the expense, however, of internal heat. In large doses the temperature goes down. On this point read two cases mentioned by Mr. Carrington, in that admirable essay of his on Alcohol, in *Guy's Hospital Gazette*.

Do these small amounts really stimulate and help one in his work? I ask the sportsman; he says he gets tired, and then has lunch, after which he feels comfortable and jolly, but never shoots another bird. It is the same with billiard-players. A violin-player in my house was advised to take a glass of wine for his excessive nervousness, but refused, saying "I know I shall lose all my nervousness, but I shall also lose my touch, and my notes will be blurred, and I shall be the last to find it out, although it will be very apparent to others."

You see, therefore, it does not stimulate or add edge to our accomplishments; but we might ask, does it add to our strength, or enable us to endure longer? To answer this I will refer to a little book in my hand, by the late Dr. Parkes, entitled, *On the Issue of a Spirit Ration during the Ashantee Campaign*. This book contains the reports of the medical officers on the effects of spirits doled out to the men. The result is given in the short preface written by Dr. Parkes, to the following effect:

"When, as frequently happens in campaigns, soldiers are marching nearly the whole of the day, and can obtain their regular food only late in the evening, what can be given to lessen the sense of fatigue, and to enable them not only to continue the march, but to be ready for any emergency which may arise? The usual resort is to a spirit ration, and there is no doubt that for a time this exerts a reviving effect. But is it the best thing which can be given, and are its advantages without alloy? I think it can be shown that it is not a perfectly reliable aid, and requires, when used at all, to be so with a full knowledge of its mode of action. The first effect of alcohol when given in a moderate dose (for example, what is equal to one fluid-ounce of absolute alcohol) is reviving; but this effect

is transient. As shewn in the report, the reviving effect goes off after, at the utmost, two-and-a-half miles of additional march, and sometimes much before this; then the previous languor and sense of exhaustion not only return but are sometimes more intense, and if alcohol is again resorted to, its effects now are less satisfactory. Its reviving power is usually not so marked, and its peculiar anæsthetic and narcotizing influence can often be distinctly traced. The men feel heavy, dull, disinclined to march, and are less willing and cheerful. It is clear, then, that alcohol is not a very trustworthy aid; for, supposing a commanding officer having marched twelve or fourteen miles, and desiring to cover ten more miles, finds his men weary, and not being able to halt and feed them, orders an issue of spirits of an amount sufficient to revive, but not to depress; the first effect will be good, but, in less than an hour, his men will be as weary as before, or probably more so. If, then, he re-issues the spirit within so short a period of time, it is certain that, in the case of many men—perhaps the majority, the marching power will be lessened. Even the reviving power of the first issue is not always so considerable as might be supposed; and, indeed, I have been surprised to find how little good effect it has sometimes produced."

The fact is that alcohol, as usually taken, is not a stimulant at all. It is a depressant and narcotic. People are simply under a delusion when they think it otherwise. We ought to change its name, and we should then get a proper notion of its character. I believe this change would tend more than any other single circumstance to make people cautious in its imbibition. It is taken for the same reason as chloral, and as opium in other countries. If you regard it as a narcotic, you will then better understand all the consequences of its use. A man in a drunken brawl over night gets his teeth knocked out. The next morning he has no recollection how it occurred, or in what manner he could have met with the accident. Cases such as this are constantly being brought into the police courts, and to some people seem almost incredible.

Alcohol, you see, is an anæsthetic. The man we have just mentioned has felt no pain. In smaller doses, as you all know, it benumbs not only the sense of touch, but that of sight and taste. Every man who has drunk much wine feels that he has lost his taste for the time. He does not know whether he is taking good or bad. "Every man at the beginning doth set forth good wine; and when men are well drunk, then that which is worse." If it were a stimulant, your taste ought to be more refined. It seems to be an utter absurdity to suppose that human nature can crave after a stimulant. For what are people craving? For what is a hard-worked man longing? not for a stimulant, but

for holiday and repose. It is for repose that every one is seeking. Some miserable people even long for death, "where the weary are at rest." Is not the cry of the lotus-eaters as far reaching as humanity itself: "There is no joy but calm"? It is contrary to human nature to crave for stimulants. The idea is absurd; and the more one knows human nature and its history, the more one wonders how such a name as stimulant could be given to any substance which has had so powerful an influence on the human race as alcohol. It might be known that anything so craved after, must be of a soothing, benumbing, or dulling nature. People say they feel better after taking alcohol. Of course they do; one does feel better.

If any of you, whilst working up for your College or Hall, get down-hearted and take a glass of wine or spirits, I have no doubt you feel better; but would you go on with your work? or, would you not go to sleep, or take the newspaper and sit over the fire? If a man have a racking pain in his head, a strong glass of brandy and water will often drive it away: a proof of its narcotising effect on the brain. A man worn out with anxiety and pain, does he want a stimulant to increase these feelings? Is he not making use of a misnomer when he takes a stimulant to drown his sorrows in the bowl? Do not the lower orders, as in an Irish wake, know the benumbing influence on grief? Is it likely they would have recourse to a drink to increase their susceptibilities? If it were a stimulant, it would bring out our faculties; but, instead of this, it paralyzes our intellect and then allows all the bad passions to have free play. This is the meaning *in vino veritas*, just as a madman loses his will and control by his higher faculties becoming paralyzed.

An immense evil has been perpetuated by giving alcohol a wrong name. It is called a restorative and stimulant; but this is only to a very slight extent and under special circumstances. Its general effect, and that for which it is almost universally used, is for its benumbing action. I want you to think of it as a depressant, an anæsthetic and narcotic, rather than as a stimulant, and you will then get an insight into its injurious effects on the human body.

As a medicine, of course, it is a good one. It is excellent as a sedative. After trying opium and chloral without success, alcohol will often give a good result in the severest neuralgia. It lowers the temperature in febrile conditions, sometimes two or three degrees. This is especially the case in typhoid fever and pneumonia. A quick pulse and high temperature call for it. There was an old man in this state last year in the ward; and I believe his life was saved by the large quantities of brandy that he took. It seems to prevent tissue-change; and large quantities seem to make a person fat. There was one case of it in this hospital some time ago, of



a woman who had suddenly taken to drink spirits and became inordinately fat. It is curious that, with all my reluctance to order alcohol unless I clearly see its necessity, I never find any one but myself order spirits of wine as a food in order to promote the growth of fat; but its effects in this respect are very striking. Little children wasting away, such as those who are not suckled, have cod-liver oil and steel wine given them, and yet still waste; but, if put on alcohol, will often get rapidly fat and well. I have now seen several such cases.

What are the effects of alcohol, if taken in excess?

Now, I am not going into the subject of drunkenness; but may mention that some of the effects are possibly due to the impurities put into the spirit. The adulterations of beer, I have no doubt, give rise to other symptoms than those arising from taking the genuine liquor. It is a horrible thing to contemplate that rich people, holding high positions in parliament and society, should be gaining large incomes out of houses where poison is sold. An officer of a regiment met me one day, almost in tears, because one of his men, under the influence of drink, had committed a murder; and, "I believe," he said, "the beer was drugged, and no one is to be punished but the man who drank it." In Paris there is a terrible liquor called absinthe, and patients are often being brought into the hospitals mad through intoxication from it.

Then, besides ordinary drunkenness, we have dipsomania; a disease for which many want to legislate. The subjects of this are not, for a time, responsible persons. They feel a craving coming on, and sometimes have strength of mind enough to go at once to a medical man and ask to take them into his house, or shut them up in a lunatic asylum to restrain them from committing themselves. I once had a clergyman in a country district affected with this under my care; and he had nearly ruined himself. When the fit came on, he used to go to the village ale-house, and take glass after glass until he was drunk. Now, knowing when the fit is approaching, he rushes away from his home and takes the train for London. There is no use in talking to that man; he is as well informed as you: he merely asks for assistance. There is a little book published on this point, styled, "*Who is to Blame?*" It is well worth your while to read it. It is an account of a man who gets drunk, shuts himself up in an asylum, but, as there is no power to retain him, he rushes out when the fit comes on him, goes to the public-house, then home, and kills his wife.

Then, there is chronic alcoholism, bringing about dyspeptic and other symptoms only too well known. I have no hesitation in saying, although I am speaking against the evil effects of alcohol, that a considerable part of my income

is derived from the drinking propensities of my patients. Every day some young man comes to me, with mottled face, yellow eye, and red tongue, saying the first thing in the morning he is sick, and the vomit sometimes streaked with blood; his bowels are loose, and he does not eat his breakfast. I have then heard quite enough to enquire how much whiskey or sherry he takes at 11 a.m. You may have observed that whiskey has taken the place of brandy in the medical dietary. I have failed to discover the reason, so I suppose it is a secret of the distiller's. He, of course, remembers well the ominous hour of eleven; and you then have only one duty to fulfil—i. e., to tell him he is killing himself; and, if that be his object, he had better continue in his course. If not, he must desist; and you will assist him in his endeavor.

If the practice continue, the liver undergoes cirrhosis, and the kidneys become granular; and in some cases there is a special tendency for the cerebro-spinal system to be affected. Thus, in delirium tremens, long before the attack, a man is foolish and half-witted, what is called a good-natured fool. The brain wastes, and weighs several ounces less than it should. This was figuratively expressed by Shakespeare when he said—"Oh, that a man should put an enemy in his head to steal away his brains." The spinal cord also is attacked, and a paraplegia may result, so that the popular saying is quite true, that some persons get drunk in the head and others in the legs. The effect on the head is very well known; that on the spinal chord does not appear to be so readily recognised.

Alcoholic paraplegia is generally found in women of about the middle age of life. It is ushered in by pains in the limbs, then sensation may be partially lost, at the same time some want of power to move them. So you see the chronic action of alcohol resembles much its acute temporary effect where the man getting drunk is narcotised, foolish and loses sensation, so that one can do anything with him, his hand trembles, he cannot find his house in the street, fumbles in his pocket for his key, and his vision is so indistinct that he declares some one has run away with the key-hole.

Alcohol produces a chronic inflammation of the brain and cord with their membranes. These latter are thickened, and the nerve-centres waste and often become what is called sclerosed. It is very difficult to say when a functional malady has become an organic disease, so that in these cases, however bad they may appear, there is a possibility of ultimate recovery.—*British Medical Journal*, Dec. 30, 1876, p. 845.

#### A COLD AND ITS CURE.

By Dr. Jukes Styrax, Physician Extraordinary to the Salop Infirmary.

It has been well remarked by Dr. George Johnson, that "a cold," or ordinary catarrh,

although of itself not a dangerous or serious malady, is nevertheless, with many persons, an oft-recurring one, causing much annoyance and discomfort both to the sufferer and to his associates—of which fact, all of us are doubtless more or less disagreeably cognizant from personal experience; and, as *medical treatment*, notwithstanding popular prejudice to the contrary, has very considerable influence on the progress of the disorder, it is, I think, well worth our while to give the question thoughtful consideration.

The exciting cause and symptoms of catarrh, together with its popular domestic treatment, are too well known to need recapitulation. I purpose, therefore, to limit my remarks to the medical treatment which, for a period of twenty years, I have adopted with considerable success. At the same time, I think it well to note that the treatment refers to that particular form of "cold" characterised by excessive defluxion from the nares and lacrymation, and more or less febrile disturbance (and not to that which, in ordinary language, is styled "a dry and stuffy cold"), and is based on the principle of restoring the natural functions of the skin, which a chilling wind or other atmospheric influence on persons with lowered vitality has wholly or partially suppressed. There are two simple modes of accomplishing the wished-for effect: firstly, by the direct application of heat to the surface of the body by immersion in a warm bath of 100 deg., increased to 110 deg. of Fahrenheit—but in a far more efficient degree by the use of a hot-air bath; and, secondly, by the action of certain diaphoretic medicines in combination—which latter are generally sufficient (and certainly the least inconvenient) to effect a cure of ordinary catarrh. In my own person, indeed, I have never found it necessary to have recourse to a bath; still, in severe colds, it may be judicious to combine the two—the bath and the medicine.

My medicine is a very simple one, and the treatment based on the principle recommended by Dr. George Johnson in his recent Lecture on the treatment of Catarrh and Bronchitis, and which I have carried out for upwards of twenty years with much success.

The difference in our respective treatment by opium, however, would seem to be, that he prescribes it in a "full dose" at bedtime (hence the nausea, headache, &c., to which he refers), with or without ipecacuanha; whereas I invariably give *small doses of morphia and antimony* every three or four hours until the sneezing and defluxion cease, which, with ordinary precaution, results after the third or fourth dose. The antimony has, in my opinion, a more special effect on the mucous membrane of the breath-passages than ipecacuanha.

The following are the forms which, slightly varied, I have used for many years: a dose or

two of either of which has enabled me on various occasions, when suffering from catarrh, to attend to my professional duties with comparative impunity. Confinement, however, to the house for a day or two, should, I need scarcely remark, be insisted on, whenever practicable. The warm or hot air-bath (or "packing"), as suggested by Dr. G. Johnson, is a valuable adjuvant to the treatment, if had recourse to on the day of seizure; and, in severe cases, I generally recommend one or the other, if attainable, and an immediate retirement to bed in a warm room.

℞. Liq. morphia (P. B.) ℥xl : vini antimon. ℥xxx; potassæ citratis ℥iv; syr. aurantii ℥ij; aquæ ad ℥iv. Misce et fiat mistura, cujus sumat cochlearia magna ij quâqua tertiâ vel quartâ horâ.

℞. Liq. morphia ℥xl; vin. antimon. ℥xxx; liq. ammon. citrat. ℥j; potassæ citratis ℥iv; sp. chloroformi ℥j; aquæ ad ℥iv. M. Ft. mist., cujus capiat cochlearia magna ii quâqua tertiâ vel quartâ horâ.

My attention was originally directed to the value of small doses of morphia in catarrh under the following circumstances: Many years ago, I was confined to my room by a very severe catarrhal attack and bronchitis, for which antimony, &c., were prescribed by a friend with but trifling relief. For some reason or other, I was induced to add the twelfth part of a grain of morphia to a dose I was about to take, and in half an hour or so the sneezing and defluxion considerably abated. The next few doses were taken without the morphia; and the coryza, &c., returned, and the cough became troublesome; in consequence of which I repeated the morphia, and again the sneezing, &c., ceased. In every subsequent attack of catarrh (to which I was at one period very subject); I combined the antimony with morphia; and, having tested their value on myself, prescribed them for others with a like satisfactory result. In what way the morphia effects the speedy relief from discomfort, which almost invariably follows its administration, I am not prepared to say. Probably, as Dr. G. Johnson suggests, it is due to some direct influence on the nerves and vessels of the inflamed mucous membrane, rather than to any diaphoretic action. Be that as it may, I would strongly advise such of you as are subject to "colds" just to try the medicine; and I entertain little doubt that the effect of its first trial will be such as to induce you eventually to thank me for the suggestion of so simple a remedy.

The antimony, in addition to its special effect on the inflamed mucous membrane, tends to counteract the usual constipating action of the morphia; and the citrate or bicarbonate of potass relieves the thirst and itching not infrequently produced (in my own case at least) by the opiate.

I would also remark that, by giving the morphia in small and repeated doses of one-twelfth of a grain, combined with correspondingly small doses of antimony, it can be safely administered to persons otherwise intolerant of opiates, without suffering from the headache, nausea, and other distressing symptoms which so often follow a full dose of opium. Mayhap some will mentally exclaim, "Oh! the principle of treatment has been known from time immemorial." Possibly so. Nevertheless, simple and efficacious as the treatment by morphia and antimony in small doses really is, I can truly assert, that during the not few years in which I have been in the profession, I have never seen it alluded to in any work on medicine, or practised by others than myself; which fact will, I trust, be deemed a sufficient apology for soliciting your attention to it.

In regard to the hot-air bath, I need scarcely remind you that such may be readily extemporised—the chief essential being a capacious spirit-lamp, with a large wick, usually kept in stock for the purpose by surgical instrument makers; and, being made of tin, the cost is trifling. The following will be found a simple and effective plan: Let the patient be seated, undressed, in a suitable armchair in his bedroom, and carefully enveloped in two or three folds of blankets extending from above the shoulders to the floor, but *outside* the chair (or, still better, a hoop affixed thereto), so as to allow a free circulation of the hot air round the body. A Mackintosh cape thrown over the blankets will enhance the effect. The best position for the lamp, according to Dr. G. Johnson, is, with due precautions, between the legs, rather than underneath the chair; and it should be kept burning for twenty or thirty minutes, or until free perspiration be established. The patient should get into a warm bed between the blankets. Nervous people are apt to object to a hot-air bath so constructed, from an absurd fear of the flame of the lamp. The difficulty may be obviated by placing a wire guard over it.

In the absence of the means for providing a hot-air or water bath, an effective action of the skin may be induced by wrapping the patient in a sheet or thin blanket (to which latter patients offer less objection than to a wet sheet, on account of the relative warmth-imparting feel) wrung out of moderately hot water, and enveloping him in a couple of warm dry blankets; in other words, "packing" him, as it is termed, for an hour or more, until free perspiration takes place; a plan of treatment which, I venture to affirm, you will find highly beneficial in renal and other forms of disease.—*British Medical Journal*, Dec. 9, 1876, p. 747.

#### ESOPHAGUS IN CHILDREN.

IN allusion to a case in which there had been some difficulty in extracting a coin swallowed by a

child, Dr. Thouvenin, in the *Bull. de Therapeutique*, states that in such cases he adopts a very simple measure with great success. It consists in laying the child flat on his belly on a table, with his head, supported by an assistant, projecting beyond it. The finger is then introduced into the mouth in order to depress the tongue, and the coin slides out along the finger of the operator.—*Med. and Surg. Reporter*, Philadelphia.

#### A SPECIFIC FOR PTYALISM.

By Dr. Jukes Styrax, Physician Extraordinary to the Salop Infirmary.

In a very annoying case some twenty-six years ago, after vainly trying all the well-known remedies, I decided on giving sulphur, it having occurred to my mind that "Plummer's pill" (then so-called, and oft prescribed), containing one grain in five of calomel, was seldom known to produce salivation; which fact I also remembered to have heard an old medical teacher attribute to the sulphur in the sulphurated antimony then known as the oxy-sulphuret. Success, however, did not crown my efforts until, by careful observation, I learnt the proper mode of administering it, which is in *small and repeated* doses, *special care being taken to diminish the quantity if relaxation of the bowels supervene*; for its peculiar action in controlling ptyalism depends upon its being retained in the system, and not allowed to pass off by the bowels—which, if necessary, should be prevented by the addition of a few minims of liquor morphiae or tinctura opii. The bowels should not be moved more than once or twice in twenty-four hours. If persevered in regularly every three or four hours, the secretion of saliva and soreness of the gums become very sensibly diminished in the course of thirty-six hours or less; and I have invariably found that its antidotal action is ushered in (or "out," correctly speaking) by the exit of a most offensive gas *per anum*—a fact which you may readily ascertain by inquiring whether, when the bowels have been moved, the evacuations are particularly offensive. The reply I have commonly received has been "Very."

I do not attempt to explain its *modus operandi*—whether by chemical combination or otherwise. All I can say is that, in the several instances in which I have prescribed it (once in the case of an old military officer aged seventy, and formerly an M.D. of Cambridge, who, relying on his whilom medical education, prescribed for and salivated himself), the controlling action was indisputable.

I have generally found that patients suffering from salivation are loth to admit, even when very evident to the medical attendant, that the flow of saliva or soreness of the gums has abated; indeed, they never appear to recognise the relative degrees of soreness, &c., until their

attention is pointedly called to the fact that they speak with greater facility; and then, on inquiry, I have usually found that a successful attempt has been made to swallow a little "soaked" bread, and that fewer handkerchiefs are required for the reception of the saliva. In soliciting your attention to the form in which I have been accustomed to prescribe it—

R. Sulphur. præcip. ℥ij ad ℥iv.; potassæ chlorat. ℥ij. ad ʒj.; liq. morphicæ ʒj ad ʒiss; mist. amygdalæ ʒviij. Misce bene et fiat mist., ejus sumantur cochlearia magna ij quæqua tertiâ vel quartâ horâ, phialâ agitâ,—

I venture to express my belief that the antidotal action of the sulphur is entirely independent of, though possibly assisted by, the other remedies. With regard to the potass, I at first prescribed the nitrate, subsequently the bicarbonate, and lastly the chlorate, which, being a neutral salt, does not produce the painful smarting of the gums which the two former preparation do. The mistura amygdalæ, in addition to somewhat disguising the nature of the remedy, offers a bland vehicle for its administration.—*British Medical Journal*, Dec. 2, 1876, p 711.

#### ON SMALL-POX.

By Dr. Robert Bell, Physician to the Glasgow Ophthalmic Institution.

It is only natural to conclude that the great exhaustion which ensues in small-pox is due to the highly nervous and important as well as extensive organ, as the skin most certainly is, is in a state not only of great and intense irritation, but of almost complete inactivity as well. Now, the great danger of a fatal issue is generally contemporaneous with the development of the suppurative or secondary fever; and, as my method of treating the disease does away with any secondary fever, the greatest, or at least one of the greatest, sources of danger is removed. By commencing this treatment at the very beginning of the attack, the comfort of the patient is secured at once; the skin is rendered less irritable; the fever, in consequence, is kept down; the strength of the patient remains unimpaired; he is able to sleep and take nourishment, and, in short, to pass through the whole course of the attack with the minimum of discomfort. At the period when supuration commences in the vesicles, and when otherwise a new phase of the disease would present itself, no such unhappiness is encountered, and the patient sails pleasantly through a sea of troubles, quite unconscious that he is doing so. This excellent result is due, doubtless, to the sedative effects of the remedy employed.

The plan of treatment consists in painting every part of the skin where the eruption

appears with one part of carbolic acid dissolved in from eleven to fifteen parts of glycerine, and repeating the application night and morning. The urine must be watched with great care as it often happens that the carbolic acid becomes absorbed and makes its presence known in the urine by giving the fluid a dark smoky appearance. If this be observed, the application must be made less frequently, or a weaker solution of the acid employed, as it may act too severely as a depressing agent, though I never knew this actually to result from the use of even the more concentrated solution. The employment of carbolic acid in this way has other advantages besides those already mentioned. It acts as a disinfectant, and it prevents pitting to a very great extent. The latter effect is due to the fact that suppuration does not run the same lengthened course as it does when no carbolic acid is employed, and thus the skin is not destroyed to such a depth as it would otherwise be. I could enumerate many of the patients who have suffered from what might have been called very severe attacks of small-pox, and yet now they present not the slightest trace of having had the disease.

The following cases will give some idea of the results obtained while pursuing this plan of treating the malady.

*Case 1.*—Mrs. T., aged 60, a thin and delicate lady, took small-pox on November 21st, 1871, which was not only confluent, but in some parts of the body hemorrhagic. I never expected that my patient would recover, as, previously to this illness, she had been in a most critical state of health. Every portion of the body where the eruption made its appearance was painted over with a solution of one part of carbolic acid in twelve of glycerine. Immediately the great distress produced by the eruption was relieved, and was prevented from returning by the application being repeated night and morning. The rest of the treatment consisted in supplying plenty of fresh air and a simple yet nourishing diet. Chlorate of potash in solution was given as a drink, and the bowels were kept moving by a mild laxative given when required; and the patient passed through the whole course of the disease without an unfavorable symptom. There was no itching of the skin, and there was no secondary fever; indeed, there was no fever at all after the first application of the carbolic acid and glycerine. The patient slept well and took her food with a relish. Within a year after her recovery, it was almost impossible to find any traces of the disease, so completely had the tendency to pitting been overcome.

*Case 2.*—Mrs. Y., aged 32, a strong and stoutly made lady, was confined of a healthy boy on December 7th, 1871, and on the day following was attacked by confluent small-pox. Under the circumstances, the greatest danger was, of course, to be apprehended, and I was, therefore,

exceedingly anxious. The same treatment as in Case I was employed, and with the like satisfactory results, with the one exception that, at this date, very slight pitting can be perceived, if looked for. The baby was vaccinated before it was twenty-four hours old, and it did not take small-pox.

One more case will suffice to shew that this treatment is deserving of a more extensive trial. On December 20th, 1872, I was asked to take charge of two ladies, mother and daughter, suffering from small-pox, their own medical man declining to attend. I found the mother prostrated by an attack of confluent small-pox, and her daughter suffering from the same disease, but of the discrete variety. The features in the elder patient were quite obliterated. The same treatment was adopted in both cases, with the effect of giving almost instant relief. As the disease held on in its course, the last named patient showed slight symptoms of prostration; and, although I was not apprehensive myself, I thought it better to have a consultation with the gentleman who then had charge of the Fever Hospital in this city. He took a very unfavorable view of the patient's condition, and gave it as his opinion that the case would probably terminate fatally when the secondary fever set in; but, as this symptom never shewed itself, the danger was avoided, and my patient made a rapid recovery. It is now impossible to detect any disfigurement from pitting.—*British Medical Journal, Nov. 25, 1876, p. 677.*

#### ON THE TREATMENT OF CHOREA.

By Dr. J. Magee Finny, Physician to the City of Dublin Hospital.

My object is to bring under notice the advantages of a certain line of treatment, without in the least claiming that it is either new and untried, or that it is the best and only treatment to be adopted in chorea.

It is a line of treatment, however, which as far as I can judge from observation of the treatment of chorea by other practitioners and the perusal of the cases recorded in our journals, is one that has of late, rather fallen into disuse and discredit.

*Case 1.—Severe Chorea; no history of rheumatism; no cardiac complication: Treatment by Sulphate of Strychnia and Ether-spray, commenced a fortnight from the beginning of illness; Immediate benefit; Recovery in fifteen days. Total duration, four weeks and one day.*—Richard F., aged thirteen, came under my care in the City of Dublin Hospital, 15th May, 1875, a fortnight ill. No cause for the attack could be obtained, except that he was a very studious boy, extremely fond of reading, and used to devote most of his out-of-school hours to study. He was a fair-haired, well-nourished lad, and presented none of the

anæmic symptoms so common in choreic patients. Before he came into hospital he had bitten his tongue on several occasions, but, although the movements of his body and extremities became much more excited for some days after admission, the tongue escaped further injury.

This lad was a well-marked example of severe chronic disturbance—for, in addition to the ordinary "madness of the muscles" of the eyelids, lips, fore-arms, hands, and legs, he was totally unable to stand or take a single step. His whole body, as he lay in bed, was so jerked and thrown about, that it was found necessary to prevent his falling out by tying a folded sheet across the bed; while any attempt to lift him up in the bed threatened dislocation of the head, so violent and jerking were his nods. His speech was also greatly impaired by the want of co-ordination of the expiratory muscles and those of the tongue and lips, a sucking inspiration continually interrupting even the shortest sentences. The treatment he had received before I saw him had consisted of succus conii and shower baths, with beef-tea and milk dietary.

On 15th May I commenced the administration of strychnia in doses of  $\frac{1}{80}$ th grain of the sulphate three times a day.

On 17th the dose was increased to  $\frac{1}{40}$ th grain, and each day it was increased little by little.

The prescription I adopted is one recommended by Hammond, which, by its accuracy and the facility of regulating the dose, supercedes that of Trousseau.

A solution of that of sulph. strychnia, of half the strength of that of the British Pharmacopœia, is made, so that five minims shall represent  $\frac{1}{40}$ th grain of the alkaloid. Sufficient is ordered for one day, and syrup added. Each day an additional minim of this solution is added to the dose of the day before, so as gradually to reach the dose which will produce the physiological effects of this powerful excitant, or which will suffice to check the excited movements of the muscles. In the case before us I employed in addition to the strychnia, what seems to me to be a useful adjunct—namely, the application of the ether-spray to the spine, from the nape to the sacrum—a line of treatment introduced by Zimmerlin and Lubilski, which is said of itself to be curative.

On the 17th I first applied it to this boy's back for four minutes. The operation was not very easily carried out, owing to his excited state—increased, doubtless, by the alarm at the novel remedy, so that it became necessary to have him held during its application. Immediately the spray was stopped and his fear passed away; the patient said he felt better, and he could speak with more ease.

It is commonly the case that the first application is dreaded most, and gives rise to most alarm, but afterwards this fear gives way to one

of actual pleasure; so it was in this boy, for on the second occasion (21st May) he did not seem to mind it, and on the third and last (the 26th) he said he liked it, and, to all appearances, he enjoyed its application. After each spraying he always expressed himself more clearly and intelligibly, and said he felt steadier and better.

On the 19th and 20th May—that is, in four or five days from the beginning of the treatment when the dose of the strychnia had reached only  $\frac{1}{30}$  gr. ter die,—there was marked evidence of improvement. The patient had much more command over the muscles of his hand, so that by an effort (of certainly no long duration) he could keep it steady and open and shut each finger in succession. He no longer needed the restraint of the folded sheet across him; he could also stand and walk very fairly with help; but the nodding of his head still persisted, and seemed beyond his control, so that it gave him a curious appearance as he walked. The next day he was able to feed himself; he was allowed up on the 22nd—the seventh day of treatment; and on the 26th he was able to walk out in the grounds of the hospital unsupported, his head being now quite steady. He was also able to hold a book and read it, and, in fact, he spent most of the remaining few days of his stay in hospital in this occupation. He left hospital, seemingly quite well, on the 29th, having been under strychnia treatment fourteen days. The highest dose of strychnia reached in this case was  $\frac{1}{7}$ th grain on the 27th. It, however, produced none of its physiological effects, such as pains and stiffness in the neck, arching of the back, or cramps or pains in the legs. The only marked effect seemed to be the production of an enormous appetite for bread, of which the patient devoured, in addition to his allowance, an extra medium-sized loaf per diem.

Ten days after leaving hospital he came back with a slight return of the unsteady movements, but these passed away in a few days, and they were very probably induced by his eager haste for study, as I learned he had, immediately on leaving hospital, resumed his studies at a school in Marlborough-street.

The total duration of chorea in this case—excluding the relapse of a few days—was four weeks and a day. Improvement followed four days treatment, and cure was effected in fifteen days.

I am indebted for the notes of the foregoing case to Mr. W. Fraser, my clinical clerk.

*Case 2.—Severe Chorea; primary attack, bilateral; no Rheumatism or Cardiac Disease; treatment by Strychnia and Ether-spray; Improvement in Four days; Cure in Twenty-five days of Treatment. Total duration, six weeks and three days.*—Catherine T., aged eleven, was admitted into the City of Dublin Hospital on the 5th January, 1875. A week before admission I saw her in the extern department of the hospital,

having walked thither. Her symptoms then consisted of grimaces, awkward jerky mode of walking, and dragging, unsteady motion of the left foot; but between that day and the 5th, the chronic movements became much worse, and were so aggravated that she was unable to stand or walk, and had to be brought in a cab to the hospital and carried up stairs. She is the daughter of a man who had a year ago left the army, and seemed to lead a vagabond life. Her mother died two years before, and she has since been living a sort of gipsy life with her father, and by her general appearance, as well as by the presence of two spots of tinea circinata, it is evident the child was much neglected. Eight months before, while in Manchester, she had been ill of fever, but of what sort could not be ascertained. She had suffered from no fright, nor any special cruel treatment, nor had she been with any case of chorea. She is a very bright, intelligent-looking child, with dark hair and eyes.

Her father stated that, about a week before I first saw her, he had noticed a “drag” in her left leg in walking, and that her left arm afterwards became unsteady; he complained also that “she kicked so he could not sleep in the same bed with her.”

The symptoms of the disease in all its fantastic shapes were well exemplified in this child, though they did not include biting of the tongue. The upper extremities were more affected than the lower, the left side being the worst, and the most remarkable feature was the rapidity with which complete supination, pronation, and rotation of the arm were performed.

Most careful examinations, frequently made during her stay in hospital, failed to discover any bruit or other evidences of any functional or organic disease of the heart; and although the pulse at times was quick, it seemed attributable to the general muscular excitement. Anæmic symptoms were not prominent.

Treatment consisted of plain nutritious food and the gradual and persistent use of strychniæ sulphas.

On the 9th January,  $\mathfrak{m}$ . 4 of the solution of sulph. strychniæ (referred to in last case), equivalent to about  $\frac{1}{60}$ th grain, were administered in syrup three times a day.

On the 11th it was increased to  $\frac{1}{35}$ th grain.

On the 12th to  $\frac{1}{30}$ th grain; and so on each day to the 18th, when 14  $\mathfrak{m}$ . of the solution, or  $\frac{1}{7}$ th grain, were employed.

Improvement did not show itself the first two days of the treatment, rather she seemed worse. However, on the fourth day, while taking  $\frac{1}{30}$ th grain, she began to shew signs of amendment, and each day she got better and better. This continued to the 19th, when, as I have said,  $\frac{1}{7}$ th grain was reached. On that it was found necessary to stop the treatment, as the child complained of pain in her neck, with stiffness in

neck, back and legs; and when placed on her feet she was unable to stand, being inclined to arch backwards, the toes of both feet were drawn forcibly in under the soles, and she cried out from the pain. All medicine was omitted, and towards evening these symptoms, indicating a full physiological dose of strychnia, had entirely disappeared—and, what was of equal importance, with them to a great extent the irregular movements. Next day it was most evident to everyone that she was much quieter than ever before; and, except when spoken to, or on attempting to sit up, the choreic movements had well-nigh ceased. I thought it well, however, not to stop the medicine altogether, so the patient recommenced the next day the sulph. strychniæ in doses of  $\frac{1}{2}$ th grain.

On this day I applied the ether-spray for two minutes, a longer application serving but to alarm the patient. I employed it again on the 22nd and 27th, and it was followed by quietude in each instance. From the 20th January to 1st February the dose of strychnia was gradually again increased, and  $\frac{1}{3}$ th grain, ter in die, was reached before its physiological effects again showed themselves to a slight degree. The dose was again reduced to  $\frac{1}{4}$ th and continued at that dose for four days longer, when pills of ferrum redact. were substituted. The improvement which first showed itself in so marked a manner on 20th January, never went back, but rather steadily increased and continued without interruption till February 3rd, when *all* the symptoms, which on admission on January 5th she had exhibited, were completely gone. She was able to command the muscles of the face; could keep the arms and forearms steady; could extend and flex at pleasure her fingers; could walk with ease along a chalked line, and go up and down stairs. She left hospital perfectly well, fat and strong, a few days afterwards.

She was thus under strychnia treatment for twenty-five days, while improvement showed itself in four days; and the whole duration of the attack was but six weeks and three days.

*Case 3.—Primary Severe Chorea, bilateral; no Rheumatism or Cardiac complication; Treatment, Ether-spray and Nerve-sedatives; Improvement.*—Joseph G., aged nine years, was admitted into hospital in March, 1876, suffering from Chorea of about fourteen days' duration. It appeared that about this time his mother noticed strange twitchings of his head. The irregular movements were next observed in the right arm and afterwards in the right leg. The left side was then affected, but the movements were never so severe in the left as in the right side. There was no history of rheumatism. On admission there was well-marked chorea of the face, eyelids, lips, and tongue; the whole body and extremities, particularly those of the right side, were in constant agitation, so that various parts of his body were erythematous and abraded;

the child could not stand, but he was able to walk in a wild, spraddling, plunging manner. The uneducated looker-on, in addition to being struck by its ludicrous appearance, must have expected such muscular exertion to be attended with perspiration and subsequent fatigue. Though well known, it is, nevertheless, a very curious fact, that sufferers such as this case and the others I have described, although they writhe, wriggle, toss and twist from morning to night, do not betray fatigue, nor are the most violent movements attended with perspiration. The patient could speak tolerably distinctly, though the words of the sentences he employed were run into each other with wonderful velocity, and many an ill-timed in-sucking of the breath made them halt and stagger in a curious way. There was no evidence of any organic disease of the heart or blood-vessels.

The only cause which could be learned as at all likely to produce chorea, in the absence of his having received any great fright, or of his having witnessed chorea in other children, was the existence of intestinal worms (*ascarides lumbricoides*), twelve of which had been expelled by santonin, by my colleague Mr. Croly, who had seen the child before admitting him to hospital.

These entozoa have, by many, been considered a sufficient exciting cause of chorea, but why worms should in one child induce such an affection, and in another produce no nervous symptoms—and why, in this child, they did not induce this peculiar train of irregular movements sooner—I do not feel myself confident to explain, and I do not care to theorise about it.

While in hospital two more female worms were got rid of by santonin, followed by castor oil.

In this case I was anxious to see which of the two remedies I employed in my former cases—the strychnia or the ether-spray—was the more to be relied on, and, accordingly, I gave no strychnia for the first ten days he was in hospital, and only employed the spray to the spine, from the nape to the coccyx. At first the application was for five, and then for ten minutes. It was used every second day. In addition to the ether-spray, which seemed to be always followed by much comparative quietude, it was found necessary to give him sleeping draughts, as for some time before admission to hospital he had not slept, but tossed about all night. The following draught was ordered and repeated nearly every night:—

℞. Potass. bromid., gr. 10; tinct. hyoscyami, ℥ 20; hydrat. chloral, gr. 10; syrapi simpl., ʒi; aquæ, ʒi. M.

At the end of the ten days the report was that the excited irregular movements are much lessened, and that he can perform, with some

degree of ease, some small action, such as picking up a coin, shutting and opening his hand, but he cannot walk steadily, nor extend and flex each finger at will. He was improved a little. I could therefore say that, in this case the ether-spray, while it lessened the severity of the movements for a while, did not act curatively. The treatment was now changed, and strychnia commenced, but I lost sight of the patient soon afterwards, as his mother, seeing him somewhat better, took him home. The contrast of this case and the others is somewhat remarkable, and points to the advantages of the early use of strychnia.

The method of administering this powerful nerve-tonic, which I employed in all my cases, was that recommended by Hammond, and I was guided in the dose more by its influence on the movements of the patient than by the desire to produce its physiological results, as Trouseau would teach.

Besides chorea, I have employed strychnine in other cases in the manner I have described with excellent results—and in one case in particular, the choreiform movements of cerebro-spinal insular sclerosis were kept better under control by its employment than by other nerve tonics, or nerve-sedatives.

Administered in this way, it is, I am convinced, a safe as well as a most useful remedy. It is not difficult to get children to take it, as its bitterness can always be masked by the various syrups of the Pharmacopœia, and it has the two-fold effect of improving digestion and increasing appetite, as well as of keeping the bowels regular—matters of no small moment in the treatment of choreic patients.

Hammond states that he "had never seen the slightest ill consequences follow this mode of treatment," and "he had carried it out in thirty-two cases occurring in children under the age of fifteen, and in three persons of adult years, without a single failure." Such evidence is worthy of all attention, and should be a sufficient answer to those who object to strychnia being used in doses large enough to produce its physiological effects, but I have a higher authority than Hammond on the safety of this medication and its therapeutic powers; for as you all doubtless recollect, in his last lecture delivered in this hall (Nov. 27th, 1876)—one in which he dwelt on the treatment of brain disease—Dr. Brown-Séguard gave, it as his opinion—an opinion which must carry with it all the weight and force of such an authority—that in many cerebral diseases strychnine is the chief remedy to rely upon, and that to obtain its good results it should be employed, and employed fearlessly, to produce its physiological effects—nay, further, that these effects ought to be kept up, so that the slight tetanic rigidity of the muscles should be maintained for four, five, or six weeks.—*Dublin Jour. Med. Science, Jan. 7, 1877, p. 31.*

## ON THE TREATMENT OF PLEURITIC EFFUSION.

By Dr. F. De Havilland Hall, Casualty Physician, St. Bartholomew's Hospital.

As I do not intend to allude to the treatment of acute pleurisy in this paper, I will pass at once to the method I employ in pleuritic effusion.

In an ordinary case of pleurisy with effusion, when there exist none of the indications for thoracentesis to be hereafter mentioned, I always begin with the following treatment, if the symptoms be at all acute, and the temperature above 99° F. I order the patient to bed, and even in cases of latent pleurisy where there is little or no febrile reaction, quiet should be enjoined as the process of absorption goes on so much more readily when the patient is at rest. After attending to the bowels, and securing a daily evacuation by means of a purgative if necessary—and if one be required, calomel or blue pill in combination with the extract of colocynth is the best—I then proceed to the more specific treatment, which consists in keeping the affected side thoroughly saturated with a weak iodide solution. I generally use one part of the tincture of iodine to three of water painted all over the side of the chest from the apex to the floating ribs, and I have a half jacket of flannel made and worn continuously, so that this becomes impregnated with the iodine, and helps to promote absorption. The internal remedies in which I put the greatest confidence are a combination of iodide of potassium and syrupus ferri iodidi, together with the use of cod-liver oil in debilitated subjects, and where it can be taken without upsetting the digestion; but in cases where the temperature is high, it cannot as a rule be borne. Blisters I do not advocate for universal application, but occasionally a blister will give a stimulus to absorption when that process is going on slowly, so that it is certainly worth while to try this form of counter-irritation in these cases. The blister should not be kept open, but allowed to heal as quickly as possible, as the good it effects takes place during the healing process. I have recently had a patient under my care in the Westminster Hospital, in whom rest and the application of two blisters had the effect of removing a very large pleural effusion, the only medicine he had being a little liq. ammon. acetatis.

If the urine be small in quantity and high-colored, a prescription containing tinct. digitalis, potass. iodidum, potass. acetat., and spiritus ætheris nitrosi has proved very useful in my hands.

Dr. Fuller advises the use of the following solution externally: ℞. Hydr. perchlor., gr. iv.; tr. iodi, ʒ vi.—ʒ j.; glycerini, ʒ iij.; aquæ dest, ʒ iv., M. ft. lotio. Or as an ointment: ℞. Hydr. perchlor., gr. iv.-v.; ungu. iodi, ʒ iv.-vi.; adipis,



3 iv.- $\bar{z}$  j. ft. ungm. And as a diuretic he gives a pill mass made up of digitalis, squills, and the pilula hydrargyri. This combination has met with the approval of many celebrated physicians. Dr. Matthew Baillie, in speaking of pleural effusion, says: "The medicine which I have found most beneficial has been mercury, combined with squills and digitalis. Five grains of the pilula hydrargyri, combined with one grain of the dried powder of squills and half a grain of the dried powder of digitalis, given twice or thrice a day, have in many cases under my care either very much mitigated or for a time removed the disease. There has been some advantage from the mercury affecting slightly the salivary glands. Squills and digitalis are by themselves much less efficacious than when combined with mercury." Sir Thomas Watson mentions 'this pill with approval, but advises less mercury—one to three grains of the blue pill, with the quantity of digitalis and squills as stated above. But whatever treatment be adopted, the alliterative advice said to have been given by a celebrated living physician, of *beef and beer* being the best absorbents, requires to be followed; as, unless the patient's strength be maintained by good food and tonics, degenerative changes are apt to ensue, and a simple serous effusion become purulent.

This plan of treatment will be successful in a large proportion of the cases brought under one's notice; but in a certain number there comes a time when the question of thoracentesis is mooted. Dr. Fuller advises perseverance in the remedies to promote absorption, so long as the breathing is not seriously embarrassed and the general health does not decline; but for my own part I am inclined to go farther, and say that if, after giving these remedies a fair trial—and I consider three weeks to be ample time—there were then no signs of absorption to any marked extent, I would advise the performance of thoracentesis; because, if done with proper precautions, it is not a risky operation, and it is hardly fair to the patient to allow him to undergo a protracted illness, with the probability of imperfect recovery and a deformed chest, whereas, by accepting the responsibility of advising the operation, the physician would, in the vast majority of cases, have the satisfaction of seeing his patient rapidly gain ground.

Sir Thomas Watson is opposed to the operation in cases of serous effusion. He remarks: "In simple pleurisy it ought never, in my judgment, to be performed, unless the life of the patient is, or seems to be, in jeopardy, from the continual presence of the liquid within the thorax." But in an addendum to his article on Pleurisy he says: "The operation seems more extensively applicable than I had formerly supposed;" though his opinion as regards its use in simple pleurisy remains unchanged.

There are two sets of cases in which thora-

centesis is required in pleurisy, when the effusion is believed to be serous:—

1. Those cases in which the effusion is so great as to threaten to be the immediate cause of death.

2. Cases in which the pleura seems unable to absorb the fluid, and the operation is undertaken to prevent the lung from being irretrievably bound down by adhesions.

As regards the first set of cases, the older physicians seemed to attach only a small degree of danger to an attack of pleurisy; and Dr. Louis went so far as to lay down a law that pleurisy is never an immediate cause of death. That this is far from being true, the instances narrated by Trousseau are quite sufficient to demonstrate, as he says, that "notwithstanding the famous law of Louis, it is possible to die, and to die suddenly, from acute pleuritic effusion." The cause of the fatal termination has not yet been clearly made out; in some cases it is undoubtedly due to the dislocation of the heart so interfering with the proper performance of its functions as to cause sudden syncope. Dr. Evans, in criticising the theory of M. Blachez and Marrotte, that the obliteration of the pulmonary artery is the cause of sudden death in pleuritic effusion, suggests that the coagula thus formed in the pulmonary artery or its branches may be the cause of the imperfect recoveries so commonly met with in effusions of long standing.

Trousseau gives a most emphatic warning against trusting to the absence of oppression in breathing as an indication that there is no urgent necessity for operating; he says that "oppression is one of the most deceitful of signs," and goes on to say, "It is from auscultation, and still more from percussion, that we must derive our most positive indications as to the opportune moment for performing paracentesis of the chest." I have only notes of two cases in which paracentesis was done when the effusion was serous, and for the relief of dyspnoea. The first one has been reported by Dr. Wardell in his paper on Pleural Effusion; in this case, "63 ounces of clear greenish straw-colored serum was drawn off to the patient's instant and great relief. That evening she could lie on the right side, which she had not been able to do for several weeks. For some days she appeared to progress favorably; she then, without apparent cause, became worse, and gradually sank on April 23rd. Inspection was not allowed." The other case I have already alluded to when discussing the subject of mensuration. This patient had left pleurisy, for which he was twice tapped; the first time 70 ounces of straw-colored serum were evacuated, and nine days later 5 pints of clear straw-colored fluid were let out. On each occasion the patient was suffering from great dyspnoea, and appeared in a very precarious condition;

the relief he experienced was immediate, and the temperature fell. This is a typical instance of the good effect of paracentesis in serous effusion, as the patient eventually made a perfect recovery. One of the most usual of objections, and which would if true be a grave one, is that thoracentesis in a case of serous effusion, by admitting air, is likely to cause suppuration to take place in the pleural cavity; but the case I have just narrated shows that this is not necessarily so, and it would be easy enough to collect innumerable instances in which a chest full of serum has been tapped more than once without altering the nature of the secretion; in fact, I am prepared to go farther, and say that it is possible to convert purulent effusion into a serous one, and a case recorded in the *Lancet* for December 6, 1873, will support this view. The notes are so interesting, and the treatment was so successful, that I venture to give an abstract.

Dieulafoy's aspirator was used in the first instance, and 106 ounces of thick inodorous pus were drawn off, and though there were no signs of the cavity becoming emptied, the operation was now stopped, as a violent fit of coughing came on. In a few days the fluid re-accumulated, and an incision was therefore made close to the former puncture, under a spray of carbolic acid. At least ten pints of pus, of the same character as before, were evacuated. When the flow had diminished sufficiently, a broad piece of drainage tubing, about four inches, was inserted into the cavity, and a very large dressing of muslin and water-proofing applied over the opening, and the patient was loosely surrounded with cotton wadding prepared with carbolic acid, in order to prevent the putrefaction of the discharge. There was a very profuse discharge during the first forty-eight hours, but no decomposition occurred; the quantity rapidly decreased, its character changed, so that on the sixth morning it was entirely serous. On the eleventh day the discharge had ceased, and the pleural cavity closed up. About three weeks later the patient caught cold, and effusion into the pleural cavity again occurred, which proved to be of a serous nature, and was twice drawn off by Dieulafoy's aspirator. The patient eventually made a perfect recovery.

In the second set of cases in which thoracentesis is required, the only *raison d'être* of the operation is that it should be done comparatively early, as "every day that passes increases the liability of the lung to become bound down to the mediastinum by false membranes."

I think that I may say, without fear of contradiction, that the modern school of medicine are unanimously agreed that thoracentesis should be performed immediately that the presence of pus in the pleural cavity is suspected, and, as I mentioned in last year's Reports, the suggestion made by Dr. Ringer to use the ordi-

nary morphia hypodermic syringe to clinch the diagnosis where the general symptoms and physical signs have been somewhat dubious, is most useful, and a great improvement on the grooved needle, as originally suggested by the late Dr. Thomas Davies.

Mr. John Wood gives the following directions for thoracentesis: "Tap in fifth or sixth space under the arm just above the rib, in order to avoid any projection from the rib and the intercostal artery. If you go to the lowest limit of dullness, you may perforate liver or diaphragm. First make an incision, draw the skin down, then introduce your instrument."

Trousseau advises "the sixth or seventh intercostal space, nearly four or five centimetres external to the outer edge of the pectoralis major."

It is better, however, to be guided to a great extent in the choice of the site for the operation by the physical signs as revealed by auscultation and percussion, and I do not see the slightest occasion for over-anxiety to tap at the lowest level of the fluid. Dr. Handfield Jones says, "I certainly prefer to find no breath-sounds in the spot where I am to plunge my trocar;" but he goes on to say that weak and distant breathing need not deter the operator, as lung-sounds can penetrate through a notable thickness of fluid.

*Whether the opening should be closed or left open.*—The rules which I have laid down for myself as regards this question, are as follow:

(a) Whenever the fluid is serous or sero-sanguineous, and so long as it continues such, I close up the opening, so as to prevent the entrance of air; and the best way to effect this is with carbolic plaster.

(b) If laudable pus be evacuated, I close the opening on the first occasion, in the hope that the little left behind may become absorbed; and even a second time I would try the effect of sealing up the orifice, provided the pus continued laudable, and only a small quantity had reaccumulated since the preceding operation. Should these two tappings not be followed by a cure, then there remains nothing but keeping the openings patent, and this must be done in any case whenever the pus is fœtid.

*If left open, by what means should the openings be kept patent?*

This is the question of all others in which I am most interested, as I feel certain that if the practice of making a counter-opening, passing a drainage-tube through, and tying the ends together externally, was more generally adopted, much greater success would attend the treatment of empyema. "Where only one opening is present, the pleural cavity may be likened to a barrel without a counter-vent, and the escape of the fluid must be irregular, and only partial." The plan of "drainage" as introduced by Chassaignac for the healing of sinuses,

consists in passing an india-rubber tube of the diameter of the sixth of an inch, perforated at intervals, through the cavity, so that the pus is able to escape as soon as formed through the perforations.

Mr. Campbell de Morgan, in an addendum to the article from which I have just quoted, gives a very clear description of the manner of introducing the drainage-tube. A firm, long iron probe, somewhat bent (for children I find a steel sound very useful), is passed through the first opening, and directed towards the back of the cavity at the most depending part. As soon as the point of the probe can be felt, an incision must be made down to the probe, which is then to be brought through the opening thus made. The drainage tube is then attached to the eye of the probe, and drawn through the two openings, and the ends of the tube are to be tied together, which completes the operation. As regards the after-treatment, all that requires to be done is to envelope the affected side of the chest in picked oakum, which prevents any putrefactive change taking place in the pus after it has flowed from the cavity. Should the oakum irritate the orifices, a small piece of lint steeped in carbolic oil may be interposed at these places. It is astonishing how soon this simple mode of treatment suffices to effect a cure. The last patient I have had under my charge in whom I employed it, had absolutely no discharge on the second day after the operation, though upwards of a pint of pus had been evacuated at the thoracentesis; a few days later there was a little oozing, but this soon ceased, and the tube was withdrawn eighteen days after the operation. Dr. Peitavy records two cases of empyema treated by resection of a portion of the rib, for the purpose of permanently widening the aperture, and so facilitating both the discharge of pus and the injection of fluids. I look upon this as an unnecessarily severe operation, and not required if the drainage-tube be resorted to.

In the able article by Dr. Goodfellow, from which I have already quoted, the history of a case of empyema of five years' standing is recorded. The discharge was profuse, and very foetid; a drainage-tube was introduced, and three months after the operation the discharge scarcely amounted to two or three drachms in the twenty-four hours; and the patient was able to walk in the garden, after being confined to bed for five years. In the other case described in this paper, the counter-opening was not made sufficiently low, so that the matter remained in the chest, became decomposed and extremely offensive. A second counter-opening was made as low down as the probe could be felt through the thoracic wall, and the pus soon lost its offensive odour, and rapidly diminished in quantity. This case affords a very good illustration of the importance of selecting the lowest point for the counter-opening.

*Are astringent or other injections indicated?*

In answer to this question I may say that I have been unable to satisfy myself that I have seen much good result from this plan of treatment; and it is one which, if the advice about the drainage-tube be followed, is hardly necessary, as it is only in cases of fistulous empyema with a single opening, and that not at the most depending part of the chest, that there is likely to be any need for the employment of these injections.

If they are used, a dilute solution of liq. potass. permang. (ʒss. ad quæ ʒj.) is about the mildest. Carbolic acid (glycerini acid. carbolicæ ʒv. ad aquæ ʒj.) is one of the most useful; and a weak solution of the tincture of iodine is said to be very useful in cases in which the pleurisy is of a tubercular or strumous origin.

Besides these three drugs, the whole armamentarium of astringent remedies has been exhausted in trying to check the suppuration. The only use I find for injections is to remove fœtor in cases where it is present; but a free counter-opening soon supersedes the necessity for washing out the pleural cavity. Should the drainage-tube, however, be not sufficient to prevent the continual formation of pus, astringent injections ought certainly to be tried; and in the event of these failing, a fair trial might be given to Dr. Dubone's plan of treatment by tannic acid.

His communication records the result of the treatment of eleven severe cases of fistulous empyema by tannic acid, given in a pill mass with the confection of roses, 10 to 25 grains per diem. In eight cases the treatment was most successful, in one there was partial success, and two died. One half the pills to be given an hour before breakfast, and the other an hour before dinner.—*St. Bartholomew's Hospital Reports*, vol. xii, 1870, p. 75.

#### ON THE TREATMENT OF ABSCESSSES BY HYPER-DISTENSION WITH CARBOLISED WATER.

By George W. Callender, Esq., F.R.S., Surgeon to St. Bartholomew's Hospital.

We are familiar with the good result which follows the washing out of the sac of an abscess with carbolised water, and afterwards draining it. In some cases, however, abscesses are divided by septa, or have extended amongst tissues so as to form several chambers communicating by narrow passages. They are practically multilocular, and, if washed out in an ordinary way, are not effectually treated, because parts of them are apt to be inefficiently cleansed. In the treatment of all abscesses, but more especially for those with branching sinuses, or with a sac broken up by imperfect-septa, we have found it desirable not merely to wash the abscess in what, for distinction, may

be called the ordinary way, but to throw in such a quantity of fluid as will distend the abscess-sac in all its parts; and this procedure we speak of as hyper-distension of an abscess-cavity. In this manner, abscesses complicated in the way I have mentioned may be cured as effectually as are those in which we have to deal with a single cavity.

The operation may be performed whilst the patient is under the influence of ether, or the integuments may be frozen by the ether-spray. The following are required:—A scalpel where an incision is needed, no open sinus existing; carbolic acid lotion (one part in twenty) diluted to one in thirty by the addition of warm water before using it; a perforated elastic drainage-tube; carbolised oil (one in twelve) on lint for dressing the wound, and gutta-percha tissue for covering this; some ordinary adhesive plaster; some tenax to receive any subsequent discharge (which, however, is very slight); an ordinary two or four-ounce syringe. When it is desirable to make continuous pressure over an abscess after opening it a pad shaped to the needs of the case, and filled with shot, will be found useful. It acts more effectually than a sand-bag, and is easily made and adapted.

The operation is begun by cutting into the abscess (if no sinus exists), the opening made being of sufficient size to admit one of the fingers. The pus is then allowed to escape, the abscess being emptied as completely as possible. The nozzle of a syringe is next passed through the opening, and the skin is drawn closely around it by the operator with his left hand; the contents of the syringe are then passed into the abscess-sac. Care must be taken in doing this, that no pressure is made upon the abscess wall, or the distension of the sac will be incomplete. Either by using a syringe which throws a continuous stream, or equally well by closing the wound with a finger whilst the syringe is being refilled by an assistant (very little fluid being lost in its reintroduction), the abscess-sac will presently distend quite to, or even beyond, its original size; and, under these circumstances, the carbolised water necessarily finds its way (as a rule, which has few exceptions) into all parts of the cavity, however irregular, and along any channels leading from it. When the abscess has been opened, the amount of injection may be roughly measured as being rather in excess of the quantity of pus let out. When distension has been effected, the fluid is allowed to escape, and, if much pus be mingled with it, a second injection may be practised. An elastic drainage-tube, its size varying with that of the abscess, is then inserted and secured, and over the end of this, and over the wound, a piece of lint, twice folded and soaked in carbolised oil, is laid. This is covered with a sheet of gutta-percha tissue and some tenax, and these dressings are secured with some ordinary plaster.

Subsequent treatment consists in the renewal of the dressings, which, to myself, it seems desirable to see to daily. The drainage tube is gradually shortened as the abscess-wall contracts, and through its canal, if there be any sign of puriform discharge, a little carbolised water may be occasionally injected.

It is scarcely necessary to add that, under this treatment, the discharge of pus ceases; a limpid serous fluid in small quantity drains away, and presently only a sinus remains; that is, in cases in which there is a persistent source of irritation. These are facts which surgeons have already described.

The point I wish to bring before the Section is, that by hyperdistension of an abscess-sac the carbolised water can be forced into cavities complicated and irregular, and that treatment can thus effect for such complicated abscesses (amongst which may be classed cases of empyema) the same result as an ordinary injection will ensure with a simple abscess.

As for the result of this treatment, so far as bone-caries is concerned, my observations do not at present allow my drawing any absolute conclusions; but that the abscesses connected with such disease can be emptied and reduced to non-suppurating sinuses, and this without causing the least constitutional disturbance, whilst the health of the patient is improved by the cessation of the suppuration, is clearly established.

I may add that, for these as for other cases, we do not employ the carbolised spray, or adopt any precautions during or after the operation beyond those mentioned, taking care only that the well-established rules for surgical treatment are strictly attended to.—*British Medical Journal*, Nov. 4, 1876, p. 579.

#### USE OF THE FORCEPS IN FIRST STAGE OF LABOR.

By Dr. S. G. SWAYNE, Consulting Physician-Accoucheur to the Bristol General Hospital.

"The first stage of labor must be perfectly finished before we think of applying the forceps." This is Dennon's fourth aphorism, and is a rule of practice which has held almost undisputed sway for nearly a hundred years. In the present day, however, the motto of the accoucheur may be said to be "Nullius addictus jurare in verba magistri." No truth is considered to be so firmly established that it is taken for granted and allowed to pass without question. The modern accoucheur does not feel bound to swear by a particular rule of practice because it was that of his "old master" at London, Edinburgh, or Dublin, as the case may be, but reserves his judgment until he has had frequent opportunities of testing it for himself by his own experience. This is the case very

much with the use of the forceps. In no branch of obstetrics have we departed so much from the precepts and practice of our forefathers as in this. The forceps is now used with much greater freedom than it was formerly, and, as experience has abundantly proved, with the best effects. For instance, about thirty years ago, according to Dr. Churchill's statistics the forceps was not used in British practice as often as once in three hundred cases. A reluctance to resort to this instrument was at that time the especial characteristic of the Dublin School. This, no doubt, was greatly due to the precept and example of Dr. Joseph Clarke, who was master of the Rotunda Hospital from 1787 to 1793. According to the first report of that hospital published by him, he used the forceps only once in every seven hundred and twenty-eight cases, and his biographer further states that he only used it "once in the multitude of cases under his care in private." Dr. Collins, who was master of the rotunda from 1826 to 1833, scarcely employed the forceps with greater frequency; for he records but twenty-four forceps cases in a total of 16,414.

In the present day, on the contrary, the Dublin School of Midwifery is pre-eminent for skill and boldness in employing and developing the great capabilities of this most valuable aid to labor. We find, from Dr. George Johnston's report of the Rotunda Hospital for 1869, 1870, and 1871, that, of 3,338 women delivered in the hospital during that period, 227 were assisted by the forceps, being at the rate of 1 in 14.74. This increased use of the forceps is attended, as Dr. Kidd has pointed out, with a diminished maternal mortality, but more especially with a most important saving of infant life, chiefly because the forceps is now employed in Dublin in difficult cases, which would formerly have been delivered by the perforator.

Within the last five years, however, a still more startling innovation has arisen in obstetric practice, viz., the use of the forceps in the first stage of labor. In his report of the Rotunda Hospital for 1872, Dr. George Johnston remarks: "In thirty-five instances, we were obliged to employ the forceps before the os was fully dilated, twenty-seven being primiparæ and eight multiparæ. In thirty of these, the interference was considered necessary, in consequence of the os uteri continuing undilated, apparently the result of the too early rupture of the membranes and the escape of the liquor amnii."

In his report for 1871, Dr. Johnston again gives thirty-six cases in which the forceps was applied before the os uteri was fully dilated, and remarks: "As there may still be many who will be astonished at this apparently bold mode of practice, and mayhap question its justifiability, I beg leave to assure them that, having adopted it for the last two years, during which

time we delivered seventy-one such cases, we are more and more convinced every day of its great advantage in saving the lives of both mother and child. He then gives an analysis of the above thirty-six cases, and calculates the amount of expansion of the os uteri in each at the time of the operation, four inches being assumed to be the utmost dilatation of the os uteri, and this diameter of four inches is divided into five parts. "In eleven instances, the forceps was applied when the os was but two-fifths dilated, when, in fact we were obliged to expand it with our fingers before we could pass the blades, and in every instance both mother and child were saved, with one exception, a case of convulsions, which was brought in comatose. In twenty-two instances, where the os was three-fifths dilated, all the mothers recovered but one, and all the children but two, which were cases of prolapsed funis. In three instances where the os was four-fifths dilated, the mothers recovered and children lived. The position of the head with regard to the pelvis, at the time when the forceps was employed:—In two cases, the head was above the brim; in fourteen in the brim, and in twenty it was in the cavity. Result: All the mothers recovered but two, one of which, a primipara, who was very delicate and anæmic on admission, died of peritonitis, with uterine diphtheritis; the other, also a primipara, was admitted comatose and in convulsions."

Before a mode of practice so contrary to all precedent can be regarded with favor by obstetric practitioners, it is necessary that the experience of a great number of observers should be recorded. As a report even of a limited number of cases in private practice is of use in this respect, I propose to give my own experience of it, first premising that I adopted this novel method of using the forceps with my mind strongly prejudiced against it as a piece of "meddlesome midwifery" of the most dangerous description. The following cases will show whether my prejudice was well founded:—

1. About 1 a.m. on July 16th, 1875, I received a message from Mr. James, requesting me to see Mrs. S., Windsor Terrace, Woolcott Park, whom he was attending in her first confinement. The pains first commenced at 9 a.m. on July 14th, and, when I saw her, the os uteri was only dilated to the size of about three inches in diameter. The pains had gone on continuously and she was feeling exhausted. We, therefore, determined to apply the long forceps. The presentation was natural, the head tolerably low in the pelvic cavity, and I could just reach the ear behind the right pubis. I used Simpson's long forceps. There was not much difficulty in applying it, and in less than an hour I delivered her of a male child alive and tolerably vigorous. The os uteri and the perineum presented very little obstacle to the passage of the head. She did well.

2. On July 21st, 1875, I attended Mrs. T., Miles Road, in her third confinement. The labor began at 4 a.m., on July 31st. The first stage was tedious, and, for four hours after the membranes were ruptured, the head remained high up in the pelvis and the os was scarcely dilated to three inches in diameter. As no progress appeared to be made, I applied the long forceps, and, after some difficulty, delivered her of a very large male child, alive and vigorous. The os was dilated to about three inches in diameter when the forceps was applied, but it did not present any difficulty, as it was soft and dilatable. She recovered well.

3. On June 28th, 1876, I attended Mrs. C., Clifton Park Road, in her first confinement. Labor began at 4 a.m. on the day previously, but the os uteri was very rigid, and, though there had been regular pains throughout the day, it was not dilated larger than a shilling at 10 p.m. I was called up to her at 1.30 a.m. The membranes had just ruptured and the pains were much stronger, but the os was not larger than a half-crown. I then felt the anterior fontanelle towards the right acetabulum, and by pressure on the right parietal eminence, succeeded in bringing the occiput round to the left acetabulum. The os uteri still continued very rigid, and by 7 a.m. was not larger than a crown-piece. I therefore used Dr. Barnes' long forceps, and, after some time and trouble, delivered her of a large male infant, alive and well, about 8.45 a.m. The pelvis was not very roomy. Some *post partum* hemorrhage followed. It was restrained by cold, pressure, and ergot. The perineum, notwithstanding careful support, was lacerated near to the sphincter. I therefore used three wire sutures. The tear healed by the first intention, and the patient made a good recovery.

4. On September 3rd, 1876, I attended Mrs. S., in Caledonia Place, in her first confinement. She was a blonde, tall, robust in make, and about 36 years of age. Labor commenced five days previously, and the pains of the first stage continued at intervals all that time. The os uteri was rigid and yielded very slowly. About 5 p.m. on Sept. 2nd, it was dilated to the size of a crown. About 9 p.m. it had dilated to the size of the bottom of a tumbler, or a little over two inches in diameter, and the membranes gave way. The pains were regular, but not very frequent. The os uteri continued in much the same state until the next morning, the head being in the pelvic cavity. I could not reach the ear, but I could feel the great fontanelle opposite the right acetabulum. The os uteri was now about two inches and a half in diameter. As the labor had become very tedious, I applied Dr. Barnes' forceps, and, after about four hours, delivered her of a large male child that had apparently been dead for some hours. I concluded that such was the case, because the

liquor amnii was much colored with meconium, and the skin had peeled from a considerable part of the head. The patient made a good recovery.

The above cases, it will be observed, corroborate the testimony which Dr. Johnston has given in favor of the employment of the forceps, under certain circumstances, during the first stage of labor. In all, the result was good as regards the mothers, and also the children, with the exception of No. 4, in which the child was still-born; but, in this case, the death of the infant appeared to have occurred before the forceps was used. It will be observed also that, in one case (No. 2, a third confinement), the delay in the labor did not arise from a rigid os, but from a disproportion between the head and the pelvis, causing the head to be arrested at the pelvic brim. The diameter of the os uteri did not exceed three inches, simply because the head did not press down sufficiently upon it after the waters had escaped. This incomplete dilatation of the os uteri in cases of contracted pelvic brim has long been familiar to accoucheurs, and has not been considered to be an obstacle to the performance of craniotomy, or even to the careful employment of the long forceps. It is far different, however, in the other three cases, which were primiparæ, and in which the insufficient dilatation was the result of the rigidity. In these, the forceps would have been formerly considered to be quite inadmissible, mainly, no doubt, for two reasons: first, because the dangers and difficulties attending its use are much greater in the first than in the second stage of labor; and, secondly, because as Dr. Churchill's statistics show, a protracted first stage is not *per se* dangerous either to the mother or the child. He admits, however, that a protracted first stage may, by inducing fatigue and exhaustion, act unfavorably on the second stage. I had once a well-marked instance of this kind. The patient, a primipara aged 30, had been in labor five days before the os uteri became dilated to the size of a crown. The anterior lip of the rigid os uteri then gave way, and a considerable rent took place. The second stage went on well for a time, until the pains almost ceased from sheer exhaustion. I then applied the forceps and delivered her, but the prostration which ensued was so great that the patient nearly lost her life. In this case all the usual remedies for relaxing the os uteri had been tried, but without effect. I have little doubt that, if the forceps had been applied during the first stage, the result would have been much better. One great object in using the forceps is to anticipate evil rather than to remove it when it exists. Before adopting craniotomy, the accoucheur should be satisfied that urgent symptoms exist which render prompt delivery imperative. With the forceps, however, it is far different. It is so safe

an instrument in moderately skilled hands, that it ought to be employed before any symptoms of powerless labor set in. No one in the present day would think of endangering a woman's life by waiting, as Denman recommended, until the pains of labor had ceased and the head had been six hours as low as the perineum. It is quite a sufficient justification for using the forceps that the progress of labor has been arrested for a time, and that the head has ceased to advance. When the forceps is thus employed in good time, the accoucheur can take time about the operation and imitate nature as closely as possible; but, if he wait for symptoms of powerless labor, he will have to deliver in too great a hurry, and when his efforts are not efficiently seconded by the pains. In the first stage of labor, above all, the delivery should be effected slowly and cautiously. Urgent symptoms have not yet set in, and the accoucheur can, therefore, afford to wait. He should only extract during the pains, and should not mind if the operation occupy three or even four hours, as it did in my last case. He will thus give ample time for the soft parts to dilate and avoid the danger of lacerations.

My experience, then, of the application of the forceps during the first stage of labor is, that the operation, when properly performed, is safe, and very often useful, although seldom imperatively demanded; moreover, that it requires a considerable amount of that *tactus eruditus* which can only be acquired by practice, and, therefore, it should not be performed by any man until he has used the forceps at least a dozen times during the second stage of labor; and I am induced, on the whole, to agree with Dr. Playfair's conclusion that, "if the os be not fully dilated, but is sufficiently so to admit of the passage of the forceps, the operation under urgent circumstances, may be quite justifiable, although it must necessarily be a somewhat anxious one.—*British Medical Journal*, April 28, 1877, p. 508.

## THE CANADA MEDICAL RECORD

### A Monthly Journal of Medicine and Surgery.

EDITOR:

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MONTREAL, AUGUST, 1877.

We are glad to learn from many sources that our remarks in our last issue, concerning the Tri-Annual Meeting of the College of Physicians and Surgeons, have met with very general approval. We trust that they may result in a much more personal interest being taken in all

the proceedings of the College. Without this direct interest from those who in reality should be the guiders of its destiny—an effective governing board cannot be elected. The more we consider the proceedings at Three Rivers the more unfortunate do they seem to us. Never, in our experience, have we seen a meeting, composed presumably of gentlemen, conduct themselves with so utter a disregard of the simplest rules of a deliberative assembly. Order and decorum there was none—and it was impossible to consider several points of importance which were brought forward and attempted to be discussed. The arguments used by several, whose position and experience should have carried weight, where reason held sway, were lost in the roar and babel of voices. We drop the curtain, but trust, in all charity, we may never have such a meeting repeated.

#### THE CANADIAN MEDICAL ASSOCIATION.

This Association meets in Montreal on the 12th of September, and from what we can learn, there is every prospect that the attendance will be large. Quite a number of very interesting papers are already on the programme, so that a profitable as well as a pleasant time is anticipated. We believe that a Reception Committee has been appointed to look after the entertainment of the guests.

#### PERSONAL.

Dr. Lachapelle has been appointed Professor of Hygiene in Victoria Medical School.

Dr. Neilson, of B. Battery of Canadian Artillery, sailed from Quebec by the Allan Steamship *Sarmatian*, on the 25th of August. We understand that Dr. Neilson is sent to Europe by the Dominion Government, to undergo a special course of Military Medical training at Netley Hospital.

Dr. Burroughs, of Quebec, is attached to B Battery, and will perform duty with it during the absence of Surgeon Neilson.

Dr. Henry Shoebottom, (M.D., McGill College, 1855,) has removed to Port Huron, Mich., from Sarnia, Ont.

At the meeting of the London Obstetrical Society, held on the 2nd of last May, Dr. Barnes exhibited, for Dr. Scott, of Woodstock, Canada, a pessary for complete

procentia uteri. It was constructed of wire, covered with rubber. The upper part consisted of a loop, which was in ended to rest behind the cervix. The stem curved backwards, over the perineum, and was supported, like Cutter's pessary, by a band which passed posteriorly. It thus was able to yield with the movements of the body. He had used it in about half a dozen cases, and found it to answer well. The patient could place it herself. The instrument could be obtained from Messrs. Blaise or Weiss.

#### PHARMACEUTICAL ASSOCIATION OF THE PROVINCE OF QUEBEC.

The annual meeting of this Association was held in their lecture room, in Montreal, on Tuesday, June 12th, at 11 a. m., H. R. Gray, Esq., President, in the chair.

After the minutes of the previous annual meeting had been read and duly confirmed, and other routine business disposed of, the President delivered a very interesting address, setting forth the progress of the Association since its incorporation in 1870, until the present time, and expressing the hope that the members, stimulated by previous success, would press forward to a higher standard as pharmacists. After the delivery of the President's address, Mr. E. Muir, Registrar and Secretary, was called upon to read the annual report, and, among other points, referred to two of a very important character, namely, that of physicians keeping drug stores, without being obliged, as others, to register, and the sale of drugs and medicines by grocers and general store keepers. The report recommended the incoming Council to take steps to have the Act of 1875 so amended as to oblige all persons, whether physicians, or otherwise, to be registered as "Licentiates in Pharmacy" before they could keep open stores for the retailing of drugs and poisons.

Mr. Mercer moved the adoption of the report, and in doing so referred to the interesting and instructive address delivered by the President, paying that gentleman a high eulogy upon it, and stating that it was evident that the writer was fully aware, from personal experience, of the duties and trials of a dispensing chemist, and fully alive to the advantage of combining with his every day duties the higher and more scientific branches of pharmacy.

The ballot for the election of Council resulted in the following gentlemen being duly elected, namely: H. R. Gray, J. D. L. Ambrosse, R. W. McLeod, T. J. Tuck, E. Giroux, H. F. Jackson, A. Manson, and Jas. Goulden. These with the following, who remain

in office, namely, N. Mercer, J. Kerry, H. Lyman and E. Muir, will compose the Council of the Association for the year 1877-8. The auditors elected were W. B. Clare and D. Watson. Votes of thanks were carried to the returning officers for their services during the past year, and also to the editor of the PHARMACEUTICAL JOURNAL of Toronto for the various notices of their meetings which had appeared in this paper.

At a subsequent meeting held in Laval University, Quebec, on Wednesday, June 20th, the following officers were elected for the year 1877-8, namely: Edmund Giroux, Quebec, President; Alex. Manson, 1st Vice-President; Roderick McLeod, Quebec, 2nd, Vice-President; John Kerry, Treasurer; E. Muir, Registrar and Secretary. Board of Examiners:—J. B. Martel, Quebec; Roderick McLeod, Quebec; N. Mercer, Alex. Manson, H. R. Gray, J. D. L. Ambrosse and H. F. Jackson, Montreal.

At a meeting of the Board of Examiners held in Laval University, Quebec, the following candidates were successful, and the Registrar was authorized to issue their respective certificates, namely: Geo. W. Cook, A. E. Michon, Paul Matthie, as "Licentiates in Pharmacy;" Fortunat F. Gauvreau, as "Certified Clerk;" and Henry Vernier and C. E. Hardy, as certified apprentices.

#### MEETING OF THE MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

JULY 6TH, 1877.

The president, Dr. Fenwick, occupied the chair.

Dr. Osler exhibited a sacculated aneurism of the innominate artery. The patient died suddenly, death resulting from effusion of blood into the pericardium through a small perforation, in a sacculus, no larger than a pin head situated on the aorta. The sac was nearly filled with a laminated coagulum. Ligature of the carotid and axillary had been proposed in this case, but the patient would not submit. The arteries generally were atheromatous.

Dr. Fenwick exhibited a specimen of stone which he had removed two days before. Two were found in the bladder of peculiar shape and size, resembling four or five cloves fastened together at their bases. He also exhibited a portion of a skull fractured along the frontal bone, the fissure extending to the orbital plate of that bone. From the same patient was taken a large clot, half as large as a fist, adherent to the dura-mater, between it and the bone.



Dr. Fenwick described the symptoms of the case which were plainly those of compression. Trephining had been performed about 16 hours after the accident with manifest improvement in the symptoms.

Dr. Fuller exhibited a galvano-cautery made by Mr. Wells (corner of Condé and Wellington sts.) The mechanism of this instrument was thought very good. Price \$5.00.

Dr. Fuller then read a paper on the treatment of meningitis.

The reader reminded his hearers of the two stages of meningitis, 1st cerebral excitement, 2nd coma as a result of effusion. This division was not in accordance with post mortem observations. In few cases is there found compression by fluid, but generally there is a small quantity of fluid in the ventricles and also semi-solid lymph in the subarachnoid spaces at the base, these being insufficient to cause coma by compression. He cited a case in which when apparently there was fluid in the brain, a trocar was plunged into the lateral ventricles two days before death and no fluid escaped. He infers that coma is not due to compression, but to irritation, central or peripheral. Irritation of the brain produces, 1stly excitement, 2ndly coma; of a motor nerve produces 1stly spasm, 2ndly paralysis; of a vaso-motor nerve, 1stly pallor, 2ndly flushing; of a sensory nerve, 1stly pain, 2ndly anæsthesia. He cited a case which he had attended with Dr. Rodgers in which there were manifest signs of meningitis from which recovery followed the exhibition of gr.  $\frac{1}{2}$  doses of morphia.

He summarises as follows:

1st. That coma is in most instances not due to the pressure of effusion, but to irritation.

2nd. That opiates are not contraindicated in meningitis even when coma is present if there be irregularities of the cutaneous circulation, and that opium by relieving irritation dissipates the coma.

3rd. That warm water is more agreeable, more soothing, and more efficacious than ice-caps.

Dr. Rodgers confirmed Dr. Fuller's observations with regard to the inutility of bromide of potassium.

Dr. Trenholme thought that if the theories advanced could be proved, then a great advance had been made. He had used belladonna, of

the tincture  $\text{my. } \frac{1}{2}$ , or of the extract  $\text{gr. } \frac{1}{4}$ , 1-10. When the liver is sluggish and tongue coated he used antimony. He approves of hot applications.

Dr. Reddy speaks highly of the treatment by leeching and opium. Uses hot applications in nervous headaches in hysterical and anæmic women.

Dr. Kennedy would hesitate to use opium in meningitis. If coma be caused by anæmia of the brain then opium would be beneficial and so would ergot.

Dr. Osler drew the attention of the meeting to the fact that the treatment was old. At autopsies tubercle was often over-looked and effusion is often not recognized unless the ventricles are examined *in situ*. He considered the reports of the cases very unsatisfactory.

A vote of thanks to Dr. Fuller was proposed by Dr. Kennedy, seconded by Dr. Loverin.

Dr. Reddy narrated several cases of rapid union of wounds without suppuration, by dressing with Friar's Balsam.

J. D. CLINE, B.A., M.D., *Secretary.*

A breach of promise suit was recently brought against a clergyman of Leicester, England, and, amongst other facts brought forward, in order to prove that the defendant was a gentleman of peculiar habits, was that of his having taken five pills a day, during a period of ill health which extended over thirty years. According to this he must have swallowed some 55,000 pills—a fact which certainly entitles him to rank as one of the chief pillars of the church.

#### SPERMATORRHEA TREATED BY ELECTRICITY.

M. Verneuil of Paris, as mentioned in the *Doctor*, has invented, for the treatment of an unmanageable case of nocturnal erections, with seminal emissions, an electric *alarm*, by which a little bell is sounded, and the patient awakened, whenever the erection commences. A very light metallic ring connects the penis with the pole of a battery. We should think the old-fashioned ring, with the teeth on the inner circumference, would answer a better purpose, and in a more silent manner.

#### FASHIONABLE ENTERTAINMENTS FOR THE WEEK.

"Going to the Throat and Ear Ball, Lady Mary?"  
 "No; we are engaged to the Incurable Idiots."  
 "Then perhaps I may meet you at the Epileptic Dance on Saturday?" "Oh yes, we are sure to be there. The Epileptic managers are so delightful."  
 — *London Punch.*