

yields a neutral test, the boiling has to be prolonged in every analysis—for what purpose? Merely to save the trouble of weighing a quantity of carbonate into a measured bulk of water. Here the trouble certainly surpasses the saving at the production of the test solution.

The nature of the analyses for uric acid also helps to strengthen my resolution here publicly to assure Dr. Jones that such analyses are of no use to pathology, to patients, or to readers. If such are to be the fruits which medicine is to ripen from the flowers of chemistry (and I believe both Liebig's and Davy's methods to be flowers of that science, the one by its profound shrewdness, the other by its great simplicity), we had much rather beg chemists not to trouble themselves in our behalf. We have long been sighing for a method to analyse urea and determine its quantity. Scarcely are we presented with a good one, when up start a series of incompetent critics and dissatisfied reformers, the first to find a thousand fallacies where nothing is fallacious but themselves, the others to deform by their intended reformation. I have heard Liebig's method declared to be fallacious by men who had never as much as read it, and who were not only utterly incompetent to try it, but also so destitute of the elements of chemistry as confidently to pronounce nitrate of baryta the best means for absorbing carbonic acid. To be sure, the best of us are liable to error, but always open to correction; it is, however, difficult to cure errors in principle. Our present morals in medical chemistry are rather lax as regards quantities. My intention in this article has been to contribute towards making them a little more stringent.

### CASE OF RHEUMATIC PARALYSIS.

By BENJAMIN DULLEY, Esq., F.R.C.S., Wellingborough.

[Read before the South Midland Branch, May 21, 1857.]

THE patient was a man, E. S., aged 32, married, living at Wellingborough, in a somewhat damp house, but in a very healthy situation. He was by trade a shoemaker, and up to January 1856, had always, with slight intermissions, enjoyed good health. On the 16th of that month, he was attacked with severe pain in the bowels, which were tender and constipated: but he was soon relieved by purgatives, combined with calomel and opium.

On February 3rd, he began to complain of acute pain in the left shoulder and elbow-joints, accompanied by heat, thirst, and restlessness. On the second day, the pain extended to the left arm, then to both hands and wrist-joints, which were slightly swollen. In about a week or ten days the severity of the symptoms had in some degree ceased, but then the pain was felt extending down the back to the hips, knees, and ankles. Again, the febrile symptoms were renewed; the tongue became furred, the pulse quick, the urine scanty, and with bright red deposit; the breathing rapid and jerking; and he had occasional delirium. This state continued for six weeks. The treatment consisted of antimony, opium, and small doses of calomel; afterwards, when the lower limbs became affected, colchicum with bicarbonate of potash was added to the other remedies with marked benefit. The febrile symptoms gradually subsided, but unfortunately left the patient weak and incapable of the slightest movement. Paralysis seemed complete in all the voluntary muscles; but the patient retained his power over the rectum and bladder. Week after week now passed with no amendment; blisters and other irritants were applied to the spine; the patient took quinine, ammonia, iron, iodide of potassium, and zinc, in succession, and had the continued daily use of electro-galvanism up to June 21st. At this time, he had only so far recovered as to be able to move his neck freely, the right arm stiffly, and in some degree the fingers of the right hand. At this date, he was carefully conveyed to the Northampton Infirmary, and there most assiduously attended by Dr. Webster (who took a great interest in the case) for four months, but returned with his paralytic symptoms unalleviated.

At the present time (May 21st, 1857), more than fifteen months from the commencement of the attack, his health is good; he eats and drinks well; indeed, he gets fat and looks cheerful; he can move his head in all directions; he has the power when in bed of rolling from the left side on to his back, which is a great relief; he can move the right arm, but the hand is drawn back and incapable of much flexion; with difficulty he can grasp a fork, but is unable to feed himself. The left arm lies by his side useless; nor can the hand be flexed

or brought up to the head. The right leg he can move freely when lying on the left side, but cannot draw it upwards. The left leg is useless. There is no swelling in any of the joints. He has no difficulty in passing either urine or feces: the former is of healthy character and sufficient quantity. The bowels are generally moved once a day.

He has never had any loss of feeling; and has rather an exquisite sensitiveness to the least touch throughout the whole body.

REMARKS. There is no novelty in rheumatic paralysis; and the present case was introduced to the attention of the meeting for the purpose of inviting discussion as to the nature and causes of paralysis in rheumatic fever. It was also desired to educe the practical experience of those members who had met with cases similar to that of my unfortunate patient; and to ascertain if any plan of treatment had been devised for alleviating so great a calamity. It was suggested that a general long continued use of the iodide of potassium was an important and frequently a successful remedy; as was also the frequent application of blisters to the spine, combined with attention to the state of the health generally. These remedies, as well as others mentioned above, had been fairly tried, and, I am sorry to say, had utterly failed.

### EFFECTS OF FULL DOSES OF OPIUM.

By FREDERICK PRITCHARD, Esq., Stratford-upon-Avon.

CASE I. About ten years since, my father and my assistant requested me to visit with them a person of the name of J. C., aged 33, of Shotton, in this neighbourhood, who had been suffering from intussusception for nine days. The symptoms were most violent, and accompanied with hiccup, stercoraceous vomiting, subsultus, and every sign of approaching dissolution. The usual remedies had been resorted to without any beneficial effect. I prescribed four grains of solid opium to be administered in the form of a pill. In twelve hours the bowels acted, and the patient speedily recovered, and has continued well from that period.

CASE II. Five years afterwards, my assistant requested me to visit another case with him. The patient, L. R., aged 50, residing at Clifford Chambers, as in Case I, had very nearly the same symptoms, and had been ill for several days before she applied. The same quantity of opium was administered, and on the following day she was relieved, and very soon recovered.

CASE III. Six years since, I was called to a lady, aged 63, with strangulated umbilical hernia, an irreducible one of long standing. I employed the ordinary taxis, and also resorted to the usual means for the purpose of relieving the strangulation, but without effect: vomiting of stercoraceous matter supervened, and the patient appeared to be sinking rapidly. A hospital surgeon was called in consultation; and it was agreed that, in consequence of the severity of the symptoms, as well as the exhausted condition of the patient, an operation was out of the question. The same quantity of opium I shortly afterwards administered, and with the same happy effect, for the bowels acted in the course of ten hours, and she rapidly recovered.

I have given a very brief but truthful sketch of these cases—cases in which I have felt much interested; and my opinion is, that in each the large dose of opium, by acting as a direct sedative, so unstrung (if I may be allowed the term) the bowel, as at once to relieve the intestinal obstruction.

The following case having occurred at the time I was thinking of sending the preceding ones for insertion, I waited to see the result of it; and as so much has been said and published lately respecting idiopathic tetanus, any contribution, I imagine, will be read with interest.

CASE IV. On August 22nd, at 8 o'clock A.M., my assistant requested me to visit a person of the name of Richard Brown, aged 27, who he stated was suffering from tetanus, but he could not ascribe the affection to any particular cause. He informed me that when he first saw the patient, he found him in a state of great exhaustion; the pulse was small and fluttering; the extremities cold; and with these symptoms were tetanic convulsions. He prescribed ammonia, opium, and chloric ether, in full doses, and gave the patient a pint of brandy in the course of two hours.

When I visited him, reaction to a certain extent had come on; his pulse was firm, and the state of the skin improved, but the tetanic convulsions had very much increased in severity.

He had violent opisthotonos, the body being completely arched; his eyes were protruded; the face and neck were livid; the breathing laborious; the abdominal muscles were strongly retracted: in fact, all the muscles were so rigid and drawn, that it is impossible to describe the poor fellow's sufferings: added to which, during each paroxysm his penis became so turgid, and, I imagine, painful, that he grasped it violently with his hand, and it was with difficulty that we could get it disentangled.

I ordered him to have an injection of turpentine and assa-fœtida; to be put under the influence of chloroform; and the abdomen to be rubbed with it. These remedies caused a slight remission of the symptoms; but as soon as the effects of the chloroform were gone, they recurred with equal severity.

I continued to visit him every hour, and both my assistants remained with him, administering chloroform from time to time, and stimulating him well with brandy. At 4 o'clock P.M., the convulsions appeared to be fast destroying him, and having witnessed the good effects of large doses of opium in spasmodic affections, I resolved upon giving him five grains, which I had carefully made up into two pills, which he took with two ounces of brandy. At 7 P.M., the convulsions began to subside, and by half-past 11, they had entirely ceased. He then went to sleep; and at 6 o'clock the following morning, he awoke quite free from pain, and complained only of stiffness. The inhalation of chloroform was continued until 10 P.M., by which time six ounces had been administered.

During Saturday, he was unable to answer any questions, and I was therefore in the dark as to the cause of his illness; but on talking to him on Sunday, he told me that on the preceding Friday he ate some berries which he gathered off the hedge by the road-side; that they made his mouth feel hot; but beyond that he did not experience any inconvenience.

I sent into the country, and had some dulcamara and bryony berries gathered, and as soon as the man saw them, he selected the bryony as those of which he had partaken, and said that he had eaten about thirty.

REMARKS. The peculiarity of this case is, there being no symptoms of poisoning prior to the attack of tetanus. Orfila mentions that bryony-root causes vomiting, fainting, violent pain, profuse alvine evacuations, etc. Pye mentions a fatal case from taking two glasses of an infusion of the root to cure an ague. Tormina and purging soon followed, and the patient sunk under it.

Whether the recovery of this man is due to the treatment, I will leave others to judge. The effects of the chloroform in at once relaxing the muscles, and removing all rigidity and pain for the time being, I think perfectly justified me in continuing the use of it for such a lengthened period. The administration of so large a dose of opium may be questioned; but when I saw the patient was being worn out by the convulsions, and when I recollected the beneficial results in the preceding cases of intestinal obstruction, I made up my mind to give it a trial.

In regard to the poisonous effects of bryony, I hope to gather more information from the leading toxicologists of the day.

## Periscope.

### PRACTICE OF MEDICINE AND PATHOLOGY.

#### CONTRIBUTIONS TO THE THEORY OF EPIPHYTES.

THE *Dublin Quarterly Journal of Medical Science* for May last, contains a translation of an article on the above subject by Dr. EDWARD KOCH, of Würzburg.

It was pardonable that investigators who had never succeeded in discovering fungi in mentagra should deny their occurrence or their pathognomonic signification in this disease; it is, on the other hand, surprising that the fungus in favus should at the present day be considered as an *accidental* product of albuminous transudations (Didot), and, accordingly, as unessential to that affection.

The general condition necessary to the growth of fungi on the human body is their transference from without to such parts as present the conditions essential to their development. Gudden has very well described the circumstances favourable to the growth of fungi on the integuments; but he has, it

seems to me, omitted a very important element in the causation of the origin and spread of pityriasis versicolor, namely, morbidly increased secretion of the perspiration, coexisting with a neglected state of the skin. That this cause of the development of pityriasis is very active with respect to the fungi on which it depends, is evident, first of all, from its frequent occurrence in phthisical subjects convalescent from typhus, and, in general, in patients affected with permanently or temporarily increased cutaneous secretion, in whom, either from carelessness or from caution, bathing or washing of the skin is omitted.

Thus Dr. Koch remembers some patients of this description who were covered literally from head to foot with scales of pityriasis, but in whom he, unfortunately, did not employ microscopic examination, and can therefore not answer for the existence of fungi in their cases, nor can he insist on the existence of the latter in *all* cases of pityriasis after typhus, as he has convinced himself of their presence in only five or six such convalescents. The parts of the body most liable to circumscribed pityriasis might be adduced as a further confirmation of this view. Thus, it is particularly apt to attack the trunk, which is much more easily and frequently the seat of increased perspiration than the extremities; and if we examine more closely, we shall find that the parts most inclined to perspiration, from the neck down to between the scapulae, the spaces above and beneath the clavicle, the axillæ, particularly the parts about their anterior portion, are most frequently and intensely attacked. In the latter situation, as well as between the breasts, he has very frequently observed it in women. He cannot give a general assent to Gudden's statement, that pityriasis versicolor in particular is of so very rare occurrence in women. This opinion may have arisen from the greater reluctance of women, for many reasons, to consult the practitioner for a few such spots, and also from the less chance of the accidental discovery in them, during medical examinations of other kinds, of the existence of such an affection, in consequence of their unwillingness, without absolute necessity, to expose the parts just mentioned. But if the physician is more frequently compelled to make such examinations in an hospital for syphilitic or cutaneous affection in the female, he will very soon be convinced that pityriasis occurs perhaps as frequently in women as in men. In children, on the contrary, it is certainly very rare; in the latter, profuse perspiration occurs less frequently, and more attention is generally paid by adults to the cleanliness of their skin, than grown people are wont to bestow upon themselves. Gudden further quotes the case of a man who was in the habit of leaving his chest exposed, and in whom the middle part of it remained free from pityriasis, certainly only because it was less liable to profuse perspiration, and because the latter was immediately dried by the access of air.

In pityriasis, the fungi grow chiefly in the external horny layers of epidermis; in favus, on the contrary, they are developed in the hair follicles, where they increase to form great scabby conglomerate masses, the so-called individual favi (*Favus-Individuen*). Leaving out of consideration that we have here to do with two different species of fungus, a strict separation of the two forms, as essentially distinct affections of the skin, is certainly justified even by the external microscopic phenomena. For the same reasons, as little can identity be maintained between favus and herpes tonsurans, or between pityriasis and the mentagraphy described by Gruby.

Thus, in herpes tonsurans, the fungus is situated almost exclusively in the hairs, and in their fibrous substance; at least, Dr. Koch was enabled, in almost all the hairs he examined, to establish the freedom of the medullary substance from the affection. In the fine whitish scales of epidermis surrounding the diseased hairs, he has, on the closest examination, but very rarely found some few sporules, but never could discover such great masses as Hebra and Bärensprung mention. These small quantities of sporules must have been derived from the bursting and breaking of the hairs filled with them into the adjoining layers of epidermis. But even should Bärensprung's assumption be correct, that the growth of the fungi begins in the epidermis, and finds its way thence into the hairs, it is still in the hairs that the process, in this form, is to be considered as predominant and essential. If, on the other hand, in favus, hairs are found, here and there, containing fungi, this is certainly so rare as to be considered an incidental occurrence; while, in this case, the formation of the scabby fungous convolution around the hairs—whether isolated or confluent is indifferent—is to be considered as characteristic.