

result of a disturbance of their equilibrium is motion and sensation.

"Thus, as every portion of nerve down to the minutest branch possesses producing power, the mass of the force generated is so universally distributed, that interference in any part of the nervous communications is reflected to the whole nervous system. So when our distinguished brother, Dr. Brown-Séguard, produces artificial epilepsy, and induces the paroxysm by irritation of some particular external point of nerve, he does, in fact, in that irritation touch at one presenting point the universal fluid pervading the whole body of his subject, and excites, not by special transmission, but by general disturbance of the equilibrium of the forces, a convulsion through the whole muscular organism. So, when with the intermittent current I galvanise a portion of the nervous tract, I produce convulsion, because I induce an alternation of force; at one moment allowing the natural equilibrium to establish itself; at the next moment disturbing it. So, when I continue the current without intermission, I virtually cut off altogether the included nervous tract from its system and cause paralysis of will, because I have cut off also communication with the brain; but I can nevertheless call into play at pleasure the excitability of the nerve-trunks below, as long as they continue to summon into their service blood for their nourishment and force-producing faculty.

"If it were possible to entirely remove from the body every muscular fibre, and, leaving the nervous system entire, still to supply that system with blood and surround it with those conditions under which its blood could be applied; that nervous system would exist as a motionless intelligence. It might think, feel, and by virtue of its sensual organs appreciate and know the external world surrounding it; yet be incapable alike of act or of expression. On the other hand, if every particle of nerve-matter could be removed, the muscular system being left with its attachments to bone still secure, and its blood-current free; that muscular system would remain an unintelligent mechanism, having in itself its *vis insita*, but feeling incapable of exerting movement until brought into action and guided by the intelligential part of a more perfect animal.

"By the combination of the two systems in the perfect organism we obtain, so long as the necessary conditions for life are supplied, the doubly endowed and self-acting body. An excitation of light refracted on the nervous expanse of the retina touches the pervading force, and the animal sees; but this light must be presented to the nerve-expanse, or, in other words, to the force that pervades the expanse, in such way that the absolute physical picture shall be put upon it, or the picture will not be seen. It is not that the picture is to be carried to the brain, but that it is to be looked on at this point of the nervous expanse by the presiding force. A vibration is set up in a mere physical membrane, spread above another distribution of nerves, and the animal hears; it is not that anything is conveyed specially to the brain, but that the equilibrium of the pervading force is disturbed. An impression is made on the skin, and the animal feels; it is not that any current is conveyed to the brain, but that the impression disturbs the balance of the nerve-fluid throughout its universality. The impression made is slight, and it is pleasant, or not painful; it is severe, and it excites the whole animal body, so that the body writhes in agony, and may even die from the reflection of the impression upon the muscular fibre, and the resultant spasm."

## RETROSPECTIVE NOTES ON OUT-PATIENT PRACTICE.

By C. M. DURRANT, M.D., Physician to the East Suffolk and Ipswich Hospital.

DIGESTIVE SYSTEM. (Continued from p. 141.)

11. *Intestinal Worms.* The only varieties of intestinal worms that have presented in the last two years, are the *trichocephalus dispar* or long thread worm, the *ascaris vermicularis* or short thread worm, and the *tania solium* or common tape-worm. We have had occasional examples of the large round worm, the *ascaris lumbricoides*, but no case has occurred during the period to which these notes refer. The variety that has obtained most frequently, is the small thread-worm. These have existed in adults as well as in children.

In the treatment of ascariides, the use of injections will generally be successful; but in out-patient practice, the adoption of this measure is often attended with much inconvenience. I have generally depended upon calomel and scammony as a purgative, giving as medicine infusion of quassia with chloric ether. If this plan fail, which it has seldom done, the injection of common salt, or the infusion of quassia, with the tincture of the sesquichloride of iron, should be tried.

In the tania cases, I have been well satisfied with the employment of the oil of male-fern. I have usually ordered a full dose of castor-oil to be taken the morning previous to administering the specific remedy. The patient should be directed to limit the quantity of food taken during that day; and on the following morning one drachm or a drachm and a half of the fern oil is to be taken, suspended in mucilage, and on an empty stomach. This plan, repeated twice a week if necessary, for three or four doses, has effected the expulsion of the worm; which, either whole or in portions, is generally brought in triumph by the patient on the next visiting day.

Ether in large doses has lately been recommended by M. Lortet as a remedy for tania. His mode of giving it, and the dose, will be found in our JOURNAL for January 21st. With a view to prevent the recurrence of the worm, the patient should be directed to abstain from eating pork, or, if he take any, it should be of the best quality and thoroughly cooked. The raw hams, eaten so largely in Germany, are a fruitful source of tania. The tincture of sesquichloride of iron with quassia may be taken for a time with advantage, and if the slightest suspicion of the re-formation of the parasite exist, the oil of male-fern, preceded by castor-oil as before, should be at once administered. It may be sometimes noticed that tape-worm becomes, as it were, epidemic within a certain locality, and then disappears, not to be seen again perhaps for a lengthened period. This fact may be explained by the researches of Küchenmeister and Von Siebold, who have shewn that the *cysticercus cellulose* of the pig and sheep is the same parasite, in a different stage of development, as the *tania solium*. Hence, if the former have existed largely in the flesh of those animals in any particular spot, it is easy to understand the comparative frequency of tape-worm at one time, and its almost entire absence at another.

12. *Dysentery.* Only three well marked cases of dysentery have applied as out-patients in the past two years. In one of these, the disease was traceable to a residence in the West Indies. In a second, it first shewed itself during a sojourn in Canada. In the third, the exciting cause was, I believed, attributable to exposure to cold and moisture acting upon a

mucous membrane irritated by an accumulation of unhealthy secretions in the colon.

The first case occurred in a young sailor, and had advanced to a chronic stage. He was emaciated and anxious, and complained of griping pain in the abdomen, which was very tender on pressure, particularly over the ileo-cæcal valve. The evacuations were very frequent, and mixed with blood and mucus. He was directed to have the abdomen poulticed with linseed meal, and as there was much fermentative action in the bowels, I ordered him to take two minims of creasote with one grain of opium three times a day. This medicine acted very satisfactorily, and he recovered perfectly, requiring only cod-liver oil as a tonic.

The second case was taken into the hospital, and treated at first with opium and creasote, which, in this instance, did not check the discharges from the bowels. He was then ordered three grains of ipecacuanha, to be increased by a grain daily up to ten grains, three times a day. This medicine did not produce nausea, but it entirely cured the disease. Flatulent distension of the abdomen continued to give the patient some discomfort. This, however, was quite removed by the compound galbanum pill at night, with the tincture of sesquichloride of iron with chloric ether during the day.

The third case was also admitted as an in-patient, the treatment out of door having been ineffectual. This man had had from eight to sixteen evacuations daily, consisting of bloody mucus, with horribly fetid and unhealthy liquid fecal matter, and the abdomen felt doughy and resisting. The treatment was commenced by two or three doses of castor-oil guarded by laudanum. This had the effect of emptying the intestines of a considerable quantity of semi-solid fecal accumulation; and the inflammation, with its attendant purging, was subsequently quite cured by ipecacuanha in ten-grain doses.

Another rather severe case is now leaving the hospital, in which the same remedy, with poultices, has produced an equally favourable result; but, in consequence of sickness, this patient was unable to increase the dose beyond five grains.

On speaking upon the subject of dysentery as it occurs in India to a friend, an Inspector-General of Hospitals, who has spent the greater part of his life in that country, he states that no remedy is found to act so favourably upon the disease as ipecacuanha. He tells me that he has sometimes found it necessary to give as much as two drachms three times a day, and this with success, after the failure of opium in doses of four grains every four hours. This gentleman also stated that the sickness induced by ipecacuanha was best obviated by giving it combined with the extract of gentian.

13. *Colica Pictorum*. But one case of this affection has presented as an out-patient in the two years, and that by no means of a severe character. The blue line along the edge of the gums was well-marked, but there was no paralysis, and the symptoms were limited to colic with constipation. The disease yielded without difficulty to purgatives, followed by iodide of potassium. The malady in all its bearings has been so fully treated of in our JOURNAL of January 14th, by Dr. Fleming of Birmingham, that it will be unnecessary to enter further upon the subject in these notes.

#### URINARY SYSTEM.

1. *Albuminuria*. Until recently, the majority of cases of diseased kidney characterised by an albuminous condition of the urine, were included under the general term of granular degeneration or Bright's disease. Dr. George Johnson has done good service

by classifying the different forms of this affection according to the pathological changes upon which each variety depends.

The cases which have presented among our out-patients have been confined to the varieties designated by Dr. Johnson as acute and chronic desquamative nephritis. The two cases of acute renal dropsy both occurred in children, and could be traced to exposure to cold after an attack of scarlet-fever. This is a very common affection among the children of the poor, from the well known fact of acute dropsy supervening so much more frequently upon a mild than after a severe attack of scarlet-fever, rendering careless nursing and rash exposure such rife causes of the disease. The vessels of the kidney becoming laden with the scarlet-fever poison, in consequence of the suppressed action of the skin, the organ is unable to perform its functions, and while the epithelium is being thrown off in large quantity, there is an escape of serum, and sometimes of blood-globules, into the uriniferous tubes, which, mixing with the urine, renders it albuminous.

Acute desquamative nephritis is not a disease that can be safely treated as an out-patient's malady, but in the cases of the two children, here referred to, the symptoms were not urgent, and by directing them to be kept in bed, and giving purgatives and diaphoretics, and subsequently iron, they both recovered, and the urine was restored to a healthy condition. The patient should in all cases be directed to wear flannel next the skin after an attack, however mild, of acute desquamative nephritis. The remaining cases which came under notice as out-patients, presented merely the phenomena of chronic renal dropsy uncomplicated by heart-disease. They were much benefited by treatment, but the condition of the kidney precluded its restoration to a healthy structure. A few words upon the chemical as well as the microscopical examination of the urine, and the import of the latter in reference to diagnosis, may not be out of place.

In examining the urine for albumen, I believe that a correct estimate of its amount and value as a diagnostic sign is often overlooked, from the hurried and imperfect manner in which its presence is sought. In testing for albumen, it is not sufficient to depend upon the result obtainable either by heat or nitric acid used separately. If, for instance, the urine be alkaline, heat will often fail to throw down albumen, even if it exist in large quantity. It is necessary, therefore, to make the urine first *decidedly* acid, and then apply heat, which will freely develop the precipitate. Again, heat used alone, without the addition of acid, may render the urine cloudy from an excess of earthy phosphates. On the other hand, nitric acid, if added singly, may deceive, by decomposing the acid salts of the urine, and thus form a deposit, which will be again dissolved by the application of heat.

It is unnecessary to boil the urine in order to obtain a precipitate, as a temperature of 180°, or even less, will suffice to coagulate the albumen.

Chronic desquamative nephritis, which is essentially a disease of mal-nutrition, may obtain as a sequel to the acute form, or it may originate as a blood-disease; and it may exist for some time without the occurrence of dropsy; or, if any be present, it is only evidenced by slight morning puffiness of the eyelids, or evening swelling of the ankles. Under these circumstances, we may have as symptoms only general *malaise*, with dyspepsia, and chronic rheumatic or myalgic pain. The patient often finds it necessary to empty his bladder more frequently than usual, especially at night; and the quantity of urine is sometimes considerably increased. On examining a deposit collected from the urine, we find it to con-

sist of granular masses of fibrine, with cylinders, and broken up epithelium which has been thrown off, and subsequently washed from the tubes by the urine.

In the acute disease, the epithelium is generally entire; while, in the chronic form, the cells are disintegrated and granular, and free from the blood-corpuscles which frequently obtain in the former variety.

There is another form, described by Dr. Johnson as the non-desquamative and fatty degeneration of the kidney. This may result from ulterior changes taking place in the desquamative varieties; or it may originate from exposure to any of the causes productive of depraved nutrition. In the fatty degeneration, the urine is more frequently diminished in quantity, highly albuminous, clear, and of very low specific gravity; and the resulting anasarca is a much more common and early attendant than in the desquamative form of the disease.

The microscope shows waxy casts, containing oil-globules, some adhering to the walls of the cast-off cells, and others scattered over the field of the instrument.

In reference to prognosis, Dr. Johnson states that "the quantity of disintegrated epithelium in the urine is a pretty accurate measure of the rate at which the disease is progressing." Again: "A very advanced state of disease is indicated by pale, almost colourless urine, rather small in quantity, more or less albuminous, with a scanty sediment containing large waxy casts."

In the treatment of chronic albuminuria, the facilities for benefiting the patient will be, of course, much enhanced if we can procure his admission within a hospital; and, indeed, if dropsy, or other secondary complications, be severe, treatment as an out-patient will be impracticable.

If much tenderness on pressure exist over the kidneys, the withdrawal of a few ounces of blood by cupping may sometimes be resorted to with advantage. Afterwards, repeated dry cupping, and the application of mustard plasters or a strong solution of iodine over the same spot, will be useful. The warm or hot air baths, when attainable, will be important adjuncts to the treatment.

For the removal of the anasarca, purgatives and diaphoretics will be found very valuable remedies. If the effusion be not very extensive, I have seen an excellent effect from one-eighth of a grain of elaterium taken every night, followed by a drachm of the bitartrate of potash in three or four ounces of water the next morning. If the dropsy be extensive and distressing, the elaterium may be increased to one-third of a grain and upwards, taken early in the morning, so as to insure copious watery evacuations. There is no better diaphoretic in this disease than the citrate or acetate of ammonia, with which I usually combine the spirit of nitrous ether and tincture of digitalis.

I have not myself seen reasons to fear the use of diuretics in the treatment of chronic albuminuria, especially if combined with an alkali, which renders the urine less acid and irritating to the denuded tissues over which it has to pass. The following is a formula which sometimes answers exceedingly well.

(Phar. Lond.) ℞ Ferri ammon.-citrat. ʒss ad ʒi; potassæ bicarb. ʒiiss; potassæ nitrat. ʒss; tinct. digitalis ʒi; spir. æther. nit. ʒij; mist. camph. ad ʒviij. M. A sixth part three times a day.

Having more or less drained off the serum, no remedy becomes so valuable as iron; and no preparation answers better than the tincture of the sesquichloride, with sulphate of magnesia and tincture of digitalis.

The cases of our out-patients did not present com-

plications requiring especial treatment for any secondary disorder besides the anasarca.

The removal of the poor to a more open and healthy residence is seldom attainable; but, if it can be effected, it is a measure tending to improve the deteriorated condition of the blood which accompanies this disease.

For the higher and wealthier classes, some well authenticated cases have been detailed, in which the most happy results have followed a long sea-voyage to a tropical climate. In the case of young persons suffering from the chronic desquamative form of the disease, the propriety of recommending such a step might become a matter for grave consideration and consultation.

[To be continued.]

#### REMARKS ON PHTHISICAL INSANITY.

By S. W. D. WILLIAMS, M.D., L.R.C.P. Lond., Acting Medical Superintendent of the Northampton General Lunatic Asylum.

THE learned Lecturer on Psychology in University College (Dr. Sankey), in his "Illustrations of the Different Forms of Insanity", in the JOURNAL for February 11th, seems to doubt whether there are symptoms of a peculiar and distinct type in "phthisical insanity", by which it can be detected from other forms of insanity. I hope he will not think me presumptuous if I take the liberty of differing from one who has had such extended experience as he has; but, both before and since the appearance of Dr. Clouston's paper in the *Journal of Mental Science*, I have paid special attention to such cases, and I cannot but agree with Dr. Clouston in his theory. I will go even further, and assert that I could diagnose incipient tuberculosis from a mere examination of the psychological condition of a patient suffering from this disease, and have certainly done so on many occasions.

In such patients, I should expect to find great excitability, irritability, and emotional exaltation; a tendency to fits of laughing and crying; delusion of a suspicious nature, and a most unpleasantly strong tendency to misconstrue the actions of their attendants; constant complainings of everybody and everything. Indeed, the more assiduously such patients are attended to and cared for, the more capricious, selfish, and unthankful they become. Nothing pleases them; and the least irregularity gives rise to delusions and hallucinations which torment and distress them beyond measure. There is a strange mixture of sense and nonsense, reality and delusion, pertinence and irrationality, in all they do and say. They will utter the most satirical and witty things one moment, and on the next wander into strange paths strewed with the most wild and chaotic vagaries and ideas. At rare intervals, they become quite calm, rational, and happy; and seem to revel in sweet recollections, whilst

"Their memory brightens o'er the past,  
As when the sun, concealed  
Behind some cloud that near us hangs,  
Shines on a distant field."

It is impossible, within the compass of a short note, to accurately do justice to this subject; but such a collection of symptoms as even those run through above never, I submit, occur except in connexion with insanity combined with tuberculosis; and yet the faithfulness of my description will, I think, be allowed by all who have had any long connexion with mental alienation.