I ordered milk-diet and aperient medicine, and advised rest; the paralysis gradually passed off, but the vascular tension remained.

In August, she began to take the nitro-glycerine solution in minim doses, thrice daily, as the attacks of dizziness were returning; the vascular tension was at once reduced, and the pulse became softer and apparently fuller; the urine, which just before the treatment had a specific gravity of 1008, increased afterwards to 1012, and became slightly more abundant. Her dizziness was relieved; but, when an attack threatened, a dose of the remedy always prevented it.

Thus, I hope that, by careful dieting, taking an occasional aperient, and keeping down excessive vascular tension by nitro-glycerine, we may be able to postpone in this patient what, perhaps, may be inevitable in the long run, viz., another attack of apoplexy.

May it not be advisable, when one is called to a case of apoplexy, to at once give a dose of this potent remedy, and, by lessening the pressure in the vessels, to prevent further effusion? Would this not be better than trusting to aperients or depletion by other methods, which occupy a much longer time before they act, and then are not always certain in their action?

CASE IV.—Mrs. C., aged 50, consulted me for severe anginal attacks and asthma, from which she had suffered for two years. I found that there was no valvular disease of the heart, but some hypertrophy; the pulse, however, was hard and tense, feeling like a piece of whiplash; and, when emptied, the walls were found to be greatly thickened. The urine, being normal, had not attracted the patient's notice; but, on examination, I found the specific gravity to be 1005, there being no albumen.

I ordered the glonoine solution, in minim-doses, thrice daily; and two minims when the pain threatened. She saw me in a week, and expressed herself as feeling much better; and, a fortnight afterwards, said she felt quite well, being entirely relieved from the pain, and quite cured of the asthma. I found the pulse softer and more compressible; and the urine, which was still abundant, had a specific gravity of 1012. I advised her to continue the remedy for some time, so as to keep up the happy state of affairs. Two months subsequently, she still remained well, having only occasionally to resort to the nitro-glycerine.

In the following cases of acute nephritis, the action of the drug in question seems to have been really very remarkable.

CASE V.—Mr. C., aged 30, a strong healthy man, consulted me on account of sciatica, for which I prescribed. A few days afterwards, as he was not much better, a friend advised him to try a hot alkaline bath, which he did in the morning. He went out afterwards, and stood for some time in a cold and draughty place of business. At night, he shivered, and was seized with a dull aching in the loins; his urine became scanty and thick, and he had to get up very frequently to micturate.

The next day I was sent for, and found him suffering from acute nephritis. He was only passing one pint of urine in the twenty-four hours, which was thick and smoky, and had a specific gravity of 1020. Under the microscope, the sediment was found to be composed of blood-casts, renal epithelium, blood-corpuscles, and lithates: on boiling, it almost became solid.

I ordered milk-diet, free diluent drinks, diaphoretics, alkalies, etc., and kept him in bed; but, on the twentieth day, there being no improvement, I began with a minim of the glycerine solution every four hours, which soon produced great throbbing in the head. This treatment was begun on Saturday night. The urine passed during the previous twenty-four hours was one pint, which had a specific gravity of 1020, and was loaded with blood. On the Sunday, the amount of urine for twenty-four hours was a pint and three-quarters; it had a specific gravity of 1020, and contained much less blood and far less albumen. On Monday, there were two pints and a half passed in the twenty-four hours; the blood had quite disappeared, and there was only a cloud of albumen on heating; the specific gravity was 1025. On the Saturday following—i. e., one week after beginning the new treatment—the urine was normal in quantity and quality, and the patient was feeling well, but weak. No relapse has occurred, and my patient is now perfectly well, six months after his attack.

CASE VI.—Mr. R., aged 39, had been suffering from dyspepsia for some weeks; but a fortnight at the seaside restored him completely. The day after returning home, he had to hurry to catch a train, and got into a violent perspiration, when he had to wait some time in a draughty station, and felt a chill come over him. The next day I was summoned, and found him complaining of an aching in the loins and frequent micturition. He was slightly feverish, and had puffy eyelids; but what alarmed him most was the condition of his urine, which was scanty, and of the colour of coffee. I ordered rest in bed, milk-diet, diluent drinks, poultices to loins, diaphoretics, etc., for three days, without any improvement; the urine then being loaded with blood, and only a pint

and a quarter being passed in twenty-four hours. I ordered one minim of one per cent. solution of nitro-glycerine every four hours. In twenty-four hours, the blood entirely disappeared from the urine; and during the following twenty-four hours the urine was passed into one utensil, and found to measure three pints; it then had a specific gravity of 1019.

On the sixth day, he felt well; and, as he had some pressing business on hand, he went out, and left off his medicine. He said he caught more cold, and found the urine dark again; but he resorted to his old remedy, and it soon cleared up. He went into the country a week afterwards, and returned to business in good health after a fortnight's rest.

The following case has been kindly furnished to me by Mr. William Hall.

CASE VII.—Mrs. C., aged 65, was attended in January, 1879, when she was suffering from bronchitis and albuminous urine. In April, 1880, she complained of sickness, had a furred tongue, and temperature 101°. The urine was smoky, and contained blood-corpuscles, much renal epithelium, and small casts; the pulse was tense, but not frequent. She was ordered steam blankets, and liquor ammoniæ acetatis, and was kept on milk-diet; after a fortnight, there being no improvement, a minim of glonoine solution was ordered to be taken every three hours, and was increased in twenty-four hours to a minim and a half. In two days, the urine became much more abundant, and paler; contained fewer blood-discs and casts, with very little albumen.

At the end of six days, the nitro-glycerine was omitted by mistake, and liquor ammoniæ acetatis given. The urine, next day, contained blood and casts, and assumed a smoky appearance. After three days' interval, the glonoine was resumed, and an improvement in the character of the urine at once resulting. This improvement continued, under the use of the remedy, until the blood and casts had disappeared, only a trace of albumen remaining.

I have not had a chance of trying nitro-glycerine in the acute nephritis of scarlet fever, or in suppression of urine, but intend giving it a trial. I hope, on a future occasion, to relate cases in which the anomalous symptoms of old age, neuralgia, etc., accompanied by arterial tension, have been benefited by the remedy in question.

I must leave my cases to speak for themselves: I report them, in order that I may elicit the opinion of others, and perhaps induce someone to try this remedy in acute nephritis, or in the numerous and often distressing symptoms which apparently have their origin in that state known as vascular tension. Whether it be due to chronic kidney mischief, or to arterial fibrosis, this condition is unquestionably relieved by nitro-glycerine; and, with the diminution of pressure, in my experience, improvement inevitably follows, though, in some cases, it may only be temporary.

CASES OF TUMOUR OF THE BRAIN IN THE INSANE.

BY THOMAS LYLE, M.D.,
Borough Asylum, Birmingham.

TUMOURS of the brain among the insane are so very rare that I think any clinical record of such cases cannot be without interest, not only to the medico-psychologist, but also to the general practitioner. I desire therefore to bring under notice two cases of tumour of the brain, one of which came under my care in June 1879.

T. H. was admitted June 30th, 1879, from his own home; age 40; married; occupation, a boatman on the canal. First attack. His wife stated that he had always been a very steady respectable man. About six months ago, one day, while at work, he fell off the boat into the canal, and was nearly drowned before assistance could be rendered him. After he was taken home, it was found he had lost the use of his left arm and leg. He remained at home from that time until he came to the asylum. When admitted into the asylum, he had regained the full use of his paralysed side. There was no history or symptoms of syphilis. His wife also stated that, during the last six months, he had been quite changed in his habits; that he was now irritable, and became very excited at times, occasionally destructive.

June 30th, 1879. When admitted, he was in a very restless condition; had general incoherency and rambling in his conversation; and neither knew where he came from nor where he was.

July 1st. The patient had rested and slept well during the night; he seemed very confused when any simple question was put to him, and was some time before he could give an answer. The muscles of his face and lips were tremulous; and when asked to put out his tongue, it was done with a jerk, and quivered while protruded. His memory was very defective; when asked how long he had been here, he said "a

month", when in reality he had only been one night. The pupils were slightly unequal, but both active. Examination of his chest showed his heart and lungs to be healthy. He complained of pain in his head.

July 20th. He had a convulsive attack to-day, after which it was found that his left side was paralysed, and the pupils were markedly unequal. He complained of pain in his head.

August 24th. He had been rather helpless since the last note was made, and been confined to bed; yet he remained in the very best of spirits. When asked how he was, he said he felt "Very well", repeating the words "very well". He sang occasionally, and talked a good deal of the fine boats he possessed, and addressed strangers by some familiar name, such as "Joe". He laboured under the delusion of mistaken identity, and held out his hand to shake hands with strangers, believing he had known them all his life. He took his food well and enjoyed it.

November 20th. Very little change had occurred since the last note was taken, unless it was that his voice was not so strong, and was very tremulous when he spoke; he took his food well, but it had ceased to do him the same amount of good as at first, as he had lately lost flesh, showing that nutrition was becoming impaired.

January 8th, 1880. He was generally very happy and content, although he was quite helpless, and had to be lifted out and into bed. A bed-sore was forming over the sacrum. Pulse 86. The urine, being examined, was found to be healthy.

February 3rd. He sank and died.

February 4th. NECROPSY.—The body was thin and emaciated; there was a large bed-sore over the sacrum. The calvarium was normal in thickness: the dura mater very firmly adhered to the skull-cap, was considerably thickened, and had a leathery feel; the arachnoid was slightly opaque, with some subarachnoid effusion. The brain-substance was highly vascular, and presented a pinkish aspect. On taking a slice off the right cerebral hemisphere of the brain, a tumour was found, of a greyish colour, occupying the greater part of the right anterior lobe, and extending backwards about three inches; the tumour was of the size of a medium orange, irregular in shape, and somewhat uneven on the surface, with two or three small cysts attached to it; it was supplied with small vessels from around it; the brain-substance in the immediate neighbourhood was very soft and pulpy, and had a cream-like appearance. The corpus striatum and optic thalamus of that side were much softened and broken up. Softening had just commenced on the left side; the floor of the lateral and fourth ventricles were rough, with small granulations, as seen in an ordinary case of general paralysis. The other organs were healthy. The weight of the brain was forty-four ounces; the blood-vessels of the brain were thickened.

The microscopical appearances of the tumour were thus described by Dr. Saundby, who kindly undertook to examine the tumour for me. Portions of the tumour were prepared by soaking in bichromate of potash solution, syrup, and gum. The sections were stained with logwood (Dr. Cook's formula). The tumour was composed of two portions—a hard and a soft portion; the former was made up of homogeneous material, staining only slightly and diffusely, containing many capillary vessels with enormously thick walls, and presenting the appearance of lowly organised newly formed tissue, which had undergone caseation. The latter was the growing portion, consisting of groups of round and spindle cells, and a number of capillary blood-vessels. The appearances were suggestive of the growth being an old gumma.

CASE II.—In the Obituary Record of this Asylum I can only find one case of tumour of the brain, which my colleague (Mr. Green) met with some years ago; and, so far as he can remember, it is the only case which has come under his observation.

The case was that of a man (E. B.), aged 40, an upholsterer, married, subject to epilepsy. He is recorded to have been a man of average height and bilious temperament, and had been gay and dissipated. When admitted, he was unable to stand, and was nearly unconscious. The pupils were sluggish, but of equal size. He could be roused, but not easily; his countenance was pale; he could not be made fully to comprehend what was said to him; to every question he answered "Yes" or "Not at all"; and spoke slowly, as if he had a difficulty in articulating. This patient lived only fourteen days, during which time he is stated to have had delusions as to his great wealth; his memory remained very defective, and his circulation languid. He is only stated to have had one fit, and that was the day before he died. His wife said his mind was more or less affected for seven years before he was sent to the asylum, and that he was almost blind for a year during that time. It was also stated that his right side was weaker than the left, as he used to assist to dress himself with the left hand, but not at all with the right, although he could move it.

NECROPSY.—In the upper part of the left hemisphere of the brain, close to the longitudinal fissure, and just under the coronal suture, was a large fibrous tumour, weighing five and a half ounces, resting upon but

not reaching the lateral ventricle; it was irregular in shape and nodulated on its surface, and the brain around it was softened; the veins proceeding from the tumour and the lateral sinus, in which they terminated, were filled with a firm dense fibrinous coagulum, whilst the whole brain was highly vascular.

REMARKS.—Tumours amongst the insane are rare; but the experience of different authors has varied, as may be seen from the following. Fischer found not one case in 318 necropsies. Dr. Batty Tuke, out of 400 necropsies of the insane, found himself in the same position; but he says that, on three occasions, he met with gliomata in the sane. Dr. Hack Tuke found one tumour in 400 cases. The French statistics show 22 out of 8,289 cases. In the Somerset County Asylum, tumours were found at the rate of 16 per 1,000. Dr. Sutherland mentions that he found four in 200 cases. Dr. Clouston was more fortunate in this respect, as he found, at the Carlisle Asylum, six cases out of 214; while this is the first case I have met with out of 400 necropsies.

Dr. Clouston, in a very interesting paper on this subject in the *Journal of Mental Science* (July 1872), says that Arnold quotes Morgagni and Bonetus, that tumours are one of the forty-seven pathological changes in the brains of the insane. Certain authors have expressed doubt as to whether tumours of the brain are really productive of insanity—their objection being founded on the fact that, in certain cases, tumours have existed which have not been accompanied by abnormal psychical symptoms. I agree with Dr. Batty Tuke, that there is very little doubt that tumours of various descriptions are productive of insanity, producing mental weakness, and, in some cases, even dementia in its deepest colour.

I think the symptoms generally to be met with are excitement, followed by some kind of seizure—it may be apoplectic; then defective memory and obtuseness of the intellect. In both the cases I have related, there were allied symptoms—such as those of an apoplectic character—at or near the beginning, followed by delusions of grandeur and wealth, as seen in general paralysis of the insane; then defective memory. I cannot say, however, that in my case the patient was free from delusion, as laid down by some; headache was complained of throughout my case, and in four out of Dr. Clouston's six cases. Then, in the two cases which I have brought forward, paralysis was present in the form of hemiplegia; this agrees with a case related by Dr. Bacon. Paralysis was present in some form or other in four out of Dr. Clouston's six cases; but paralysis does not follow as a matter of course, because a tumour is present in the brain. Calmeil found that three-eighths of those affected with organic disease of the brain were free from paralysis, and, of the other five-eighths paralysed, he found four-eighths hemiplegic.

Dr. Boyd has compared the frequency of tumour in the sane and in the insane; and finds that, out of 38 cases, 17 showed symptoms of insanity, which agrees with Calmeil; but I cannot help thinking that this is much too high a percentage, and that a very great number of cases are treated at home, and we hear nothing about them; it may be only looked upon as ordinary softening of the brain. In conclusion, the two cases I have related strongly corroborate the excellent paper by Dr. Clouston on this subject, as regards the pathological influences exercised by tumours growing in the brain. He says they have three distinct effects on the brain-structure. 1. They create irritation, tending to *ramollissement* in the nerve-substance with which they are in contact. 2. They cause pressure on distant parts, which, in its turn, causes an alteration of the structure and nutrition. 3. They set up progressive disease, resulting in an increase of the connective tissue and thickening of the coats of the blood-vessels.

MOUNTAIN-FEVER.

By ALFRED WISE, M.D.,

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THE increasing confidence in the high altitude treatment calls for publicity of all the drawbacks as well as the advantages of this modern practice in dealing with patients affected with phthisis. This may be some excuse for a description of my own case of what may be termed "mountain-fever", on the occasion of my second visit to Davos Platz.

I arrived at Davos (5,105 feet) on October 11th, after a stay of thirty-six hours at Chur (1,936 feet). I felt no ill effects from the rise, and made a good dinner. I slept well till 4 A.M., when I was awake by pains in the epigastrium, caused by spasmodic contractions of the stomach, occurring every two or three minutes, and lasting a minute or so. I had no sleep after 4 A.M. On dressing at 8, the tongue was slightly furred; the bowels open. The pain was relieved by coffee at breakfast. There were no interscapular pains. The appetite was good.