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.

October 12th. I was about the same; had pains occasionally throughout the day.

October 13th. I slept badly. The temperature varied during the day from 99.2° to 100.3°. Pulse 122. I abstained from solid food. Appetite was good.

October 14th. The tongue was slightly furred. I perspired profusely towards morning, and had occasional feelings of mild vertigo. Temperature 100°; appetite fair. There was no pain on deep inspiration. The urine was a little high-coloured. Temperature 100.2°.

October 15th. I slept a little better. There was no perspiration. Temperature 99.2°; pulse 100. I felt quite well after a cold bath, and hungry. I was obliged to eat plentifully at breakfast. The temperature at noon was 99.6°. I made a good lunch. The temperature in the afternoon was 100.4°; pulse 88. I had pains in the epigastrium, relieved by sal volatile. Temperature at 5 P.M., 100°; pulse 92. I felt well after dinner. The urine was loaded with lithates.

October 16th. Temperature 99.6°; pulse 84; tongue clean. Noon: temperature 99.6°; pulse 84. 3 P.M.: temperature 101°; pulse 100. 9 P.M.: temperature 100°; pulse 92.

October 17th. Temperature 99.2°; pulse 88. At noon: temperature 99.4°; pulse 104. 3 P.M.: temperature 100.4°; pulse 92. 4 P.M.: temperature 100.8°; pulse 88. 8 P.M.: temperature 99.4°.

October 18th. 7 A.M.: temperature 99.2°; pulse 88. 9 A.M.: temperature 98.4°; pulse 92. Noon: temperature 97.8°; pulse 80. 3 P.M.: temperature 100°; pulse 80. 8 P.M.: temperature 100°.

October 19th. The temperature varied in the same manner from 99° to 100.2°. The pulse in the sitting posture was 76; when standing, 96. After going slowly down stairs and up again (about twenty-four stairs), the pulse was 132. I had occasional shivers. The heart's action was feeble and irritable. The hands and feet were cold; the tongue clean.

October 20th. Pulse in sitting posture, 84; standing, 100. Temperature from 98.8° to 100°.

October 21st. Temperature from 99° to 99.8°; pulse 76 to 116, according to movement.

October 22nd. Temperature 98.8° to 99.2°; pulse 84 to 108.

October 23rd. Temperature 98.4° to 98.6°; pulse 80 to 94.

November 1st. Temperature 98.4°; pulse 84 to 108.

The chief feature in this attack of high temperature was the irritable heart's action; the beats of the pulse, on the slightest movement, being increased out of all proportion to the exertion taken. The respirations were increased from 16 to 24, and depended entirely on movement. The appetite was good throughout; and there was always a feeling of relief after dinner, although the temperature did not fall until morning. Some loss of flesh was noticeable after a few days.

The temperatures partook of a periodic character; but quinine in six-grain doses had little or no effect in reducing them, tending only to increase the irritability of the heart's action. For this reason, and wishing to observe the course of the fever, I abstained from that drug after thirty grains had been taken.

Previously to October 11th, I had had the best of health for some years; and, on my former visit to Davos in 1879, I experienced no disagreeable effects whatever from the change in altitude; but on that occasion I broke the journey at Chur for four or five days. I should recommend this plan of dividing the journey to be adopted in the case of invalids sent to high altitudes, as the result of such fever on a delicate person might be more lasting and of greater consequence than to one in the enjoyment of good health.

It is true that the majority of fresh arrivals here find themselves exhilarated and benefited by the rise; but there are not a few who suffer from high temperatures and irritable heart's action, etc., during the first fortnight. This, if possible, it is very necessary to avoid.

The pains in the epigastrium I attributed to an excessive secretion of gastric juice. They occurred on an empty stomach, were increased by the thought of food, and were immediately relieved by compound spirits of ammonia.

CASE OF SEVERE BURNING OF THE HEAD AND SHOULDER: RECOVERY.

By JOHN COCHRANE, L.R.C.P. & L.R.C.S. Ed., Edinburgh.

THE following case, the details of which I desire to record, is of considerable interest in several respects, mainly in regard to the magnitude of the surfaces of injury, the peculiar position of the parts involved, and the extremely intemperate habits of the patient.

On February 21st, 1879, I was requested to visit Mrs. B., who, I was informed, had been severely burned about the head and left

shoulder by falling into the fireplace of her bedroom. On seeing her, I found that the hair, skin, and deeper structures over the top of the head were entirely charred, and large sloughs were coming away. Linseed-meal poultices had been applied for a day or two before I was asked to see her. On the left shoulder and back of the forearm, I found a large sloughing sore, which had also been poulticed.

As to the cause of the accident, it appears that the lady, who is well up in years, had been for a lengthened period given to the abuse of intoxicating liquors, and, whilst under their influence, had fallen and rolled over into the fireplace. Being stupefied with drink, she lay with her head close to the bars of the grate. The result was that her hair was consumed, and in this condition she was discovered by a member of the family.

As soon as the sloughs separated, I dressed the ulcers daily with carbolic acid lotion, and occasionally varied this with zinc ointment.

On March 8th, seeing that my patient was losing strength, I prescribed some quinine powders, which benefited her much. In order to quiet the nervous system, which was sadly out of sorts, owing to her previous drinking habits, I prescribed, on the 10th, bromide of potassium; and, on the 18th, cough required treatment. She still, however, continued to indulge in stimulants, in spite of the remonstrances of her friends; and she gave her family the greatest possible annoyance. I found it an extremely difficult affair to get her to submit to my counsels; and I was often disheartened, during my daily visits, to find that she had returned to her old habits.

Being anxious to use a dressing which, whilst proving beneficial to the wounds, would at the same time remove the very disagreeable smell, I resolved to try terebene mixed with olive-oil. This was applied daily on lint with oiled silk above, with the use also of gauze bandages for the shoulder and forearm. I commenced to use this dressing on April 16th; but my patient complained that the bandages "cut her skin", as she expressed herself. However, I persisted with their use, and after a time she became accustomed to them.

On May 9th, she had a pretty sharp attack of erysipelas of the head and face—due, no doubt, to an extra fit of drinking. She suffered from extreme depression; and for a time I was very anxious about her condition. I had, indeed, little hopes now that she would rally; but, fortunately, through careful nursing and diaphoretics, etc., she gradually gained strength; and, after a few days, I had the satisfaction of seeing the disease abating.

On June 13th, I commenced to use boracic lint for the first time as a dressing to the head and arm. Zinc ointment was also occasionally ordered for the arm.

On July 19th, a lotion of tannic acid and glycerine was used for hardening the cicatricial tissue of the arm and shoulder.

On September 3rd, I used a lotion of boracic acid for applying to the head and arm at each dressing, previously to the application of the carbolic oil and lint.

By October 25th, the ulcer on the shoulder and arm had entirely cicatrised, without much contraction or dragging; and the patient could use the arm with the utmost freedom. As, however, there were some scales on the cicatrix of a psoriatic nature, which were a source of pain and annoyance to the patient, simple ointment was ordered to be applied; and also olive-oil, in order to soften them and allow their easy removal. She was also carefully bandaged; and this seemed to have a good effect in the prevention of too much contraction.

On December 3rd, a portion of the occipital bone, measuring four inches in length and two inches and a half across at its broadest part, separated as a sequestrum. This portion of bone weighs six drachms and one scruple, and is of considerable thickness. The surface from which it came has almost entirely healed, with the exception of a very small bit in the centre.

On March 15th, I measured the extent of the injured surface on the head, and found it to be seven inches in length, and across, at its broadest portion, four inches. The cicatrix on the shoulder and forearm measured eight inches in length, by four and a half in breadth at its broadest portion.

REMARKS.—I must acknowledge that, when I took this case in hand, I was not at all sanguine as to the result, considering all the circumstances connected with it; and it has been a puzzle to me how the healing process could go on as well as it did, seeing that Nature had to contend against so much. Terebene I found to be most advantageous in its healing powers; and its complete efficacy in removing the extremely disagreeable smell from the discharges of the ulcers was sufficiently established, and its agreeable odour tended to sweeten the air of the bedchamber, which made the work of dressing the sores less disagreeable to me. Dr. Patrick Heron Watson also kindly saw the patient along with me, and expressed his opinion that the result had been very satisfactory.