

absent from London, and Mr. Henry Smith, as his *locum tenens*, came instead. Mr. Smith at once perceived that the head of the bone was still out of its place, but at first was inclined to doubt the existence of fracture. However, on going behind the patient, and steadying the head of the humerus with his right hand, and at the same time lifting up the arm to its utmost extent, and then rotating it, he soon satisfied himself that the anatomical neck of the bone was broken across. But in so grave an accident, so rare and so difficult to manage (and occurring, too, in an epileptic patient), as dislocation of the shoulder-joint, with fracture through the neck of the humerus, undoubtedly is, Mr. Smith, in the absence of Mr. Fergusson, suggested our having the assistance of Mr. Erichsen. Mr. Erichsen confirmed our diagnosis, and suggested that the patient should be put under the influence of chloroform, and then that reduction should be attempted by means of manipulation about the joint. My son administered the chloroform; and, while Mr. Erichsen and myself were conversing together, Mr. Smith, who was watching its effects, as soon as narcotism appeared to be induced, to use his own words, "forcibly seized the end of the depressed bone with both his hands, and, lifting it up in the direction of the socket, found, to his great satisfaction and surprise, that the head of the bone readily slipped into the glenoid cavity." The fracture was put up in the usual way; and I may here remark, in reference to it and the whole accident, that nothing could have progressed more satisfactorily to perfect recovery. I saw Mr. B. some weeks ago, before he left London, in the full and free use of his shoulder-joint, and he assured me that his arm felt as strong as it ever had done. The bony union was perfect, and the shape and movements of the arm and joint were normal. Under the direction of Dr. Brown-Séquard, Mr. Pratt had supplied him with an apparatus to secure him against the danger of luxation of the joint in his epileptic attacks.

Such accidents, fortunately, are of rare occurrence. Mr. Fergusson, in his *Surgery*, makes mention of two cases; but most other writers are silent on the subject.

The day after the accident, I had a consultation with Dr. Brown-Séquard on the case. In epileptic cases, I have, from personal observation, seen great benefit to result from the immediate inhalation of chloroform on the first accession of the attack, by its checking and controlling the violence of the convulsive agitation, and inducing quietude and repose. I was therefore prepared to agree with the proposal of Dr. Brown-Séquard, that we should anticipate the next epileptic seizure; and on the Saturday following, when it was most likely to occur, from former experience, to put Mr. B. under the influence of chloroform, dreading the injurious effects which another epileptic attack might have on the fractured arm.

Accordingly, at eight o'clock on the Saturday morning, I began the administration. Dr. Brown-Séquard paid his visit about an hour afterwards; and from this time until eight o'clock on the Sunday evening following, the effects of the chloroform, without intermission, were kept up. The brother or the sister of the patient was constantly at his bedside. From time to time, as the effects appeared to be passing off, and he seemed to be awakening, he was given a few spoonfuls of beef-tea, and the inhalation was renewed. It was administered by means of a towel, as directed by Dr. Brown-Séquard; and in all about half a pint was used; the window of the bedroom being kept constantly open at the top, to allow the escape of the vapour and the introduction of fresh air. He was a little sick on awakening up after the administration had been discontinued; but from this he speedily recovered, and made a hearty meal of beef-tea, suffering no further inconvenience of any kind. A few days afterwards, he had a slight epileptic attack; but his brother, being at his bedside at the time, pressed his arm firmly, and no bad consequences followed. He re-

mained under Dr. Brown-Séquard's care up to Christmas, during which period his attacks have gradually diminished both in violence and frequency.

CURIOUS EFFECTS OF MALARIA ON THE BODY.

By Dr. GAETANO DE PASCALE, Nice.

THE axiom of the great Baglivi is, that observation of facts is the foundation of medical science. I therefore think it may not be useless for my brethren if I submit to them a medical fact on a particular subject, although it may be very well known.

Relapse is common in intermittent malarial fever, as well as in what are called complicated intermittent fevers.

It is unfortunate for those who have been once attacked by intermittent malarial fever. The celebrated Dr. Todd says, in his *Clinical Lectures*, p. 121: "It seldom happens that the marsh-poison, once admitted into the human system, ever becomes perfectly eliminated from it."

In the present state of medical knowledge, the different forms and symptoms in which intermittent malarial fevers appear are known; the cause, or rather the nature of the poison, still remains obscure. It is generally admitted that the nervous system forms the principal seat of the disease.

The following fact has been ascertained by me, not as a doctor, but as a friend of the patient.

Mr. S., having the appearance of general good health, of a lymphatic sanguineous temperament, about thirty years of age, was obliged, as an officer in the Italian army in the year 1848, to remain for a few days in a marshy place, where intermittent malarial fevers were prevailing. After a few days residence in that pestiferous place, he had an access of fever, with the common first symptoms of chilliness, shivering, cold, followed by heat, perspiration, etc. A second stronger attack induced his doctor to employ sulphate of quinine. Mr. S. was free from fever, which, however, after a few days returned; but by daily taking the above mentioned preparation of bark, and by change of air, he was entirely cured.

Mr. S. had been well for about six years, when, living in a place where several cases of cholera occurred, he began to suffer some symptoms of this complaint. The doctor who visited him termed it cholera, and treated him accordingly. Mr. S., however, did not improve; he was a little better in the morning, but in the afternoon he was troubled with flatulence, great pain, and at times by relaxation of the bowels. After several days, the doctor, seeing his patient declining, thought of trying quinine, after which amendment was apparent. In a larger dose, the medicine was rejected, and the patient recovered.

I have no doubt that the derangement of the bowels would have ceased, but for the poison of the malarial fever which existed in the constitution, and which, instead of the ordinary symptoms, assumed those of the predominant disease.

Two or three more years passed, when Mr. S. was taken ill with symptoms of gastric disturbance, accompanied with diarrhoea. The doctor prescribed a slight aperient, proper diet, and rest; but his patient did not recover. The diarrhoea took the form of dysentery. Enemata, magnesia with bismuth, opium, etc., were quite useless, till some quinine began to be administered. Immediately all symptoms ceased, and Mr. S. gradually recovered.

About a month ago, Mr. S. felt a slight pain with swelling of his right ear, which increased very much in the evening and night. His medical man, a new one, and very renowned, was sure it was the result of cold, accompanied by neuralgia. It was only after the asser-

tion of the patient that he had been subject to intermittent malarial fever, and by finding his pulse very concentrated and small, that he ordered, after the application of leeches and fomentations, a dose of quinine; after which Mr. S. began gradually to get better.

Now, was it the malarial fever which appeared with the different above mentioned symptoms, as often is the case? or did the complaint which first appeared, such as the cholera, the gastritis, the otitis, etc., give place to the development of the intermittent malarial fever? This I am most inclined to believe.

No doubt it is of great importance, in treating our patients, to ascertain whether they have ever had intermittent fever—at the slightest symptom, I will say, not of intermission, but of remission. If so, I think it enough to say—forewarned, forearmed.

NOTES OF A CASE OF HYDROPHOBIA.

By R. W. CUNNINGHAM, M.D., Assistant-Surgeon in Medical Charge H.M. 4th Bengal Europeans.

PRIVATE JAMES BELSHAW, 37 years of age, and two and a half years in India, served previously in H.M. 48th Foot, and also in the Baltic Fleet in 1854, under Sir Charles Napier, of sanguine temperament and intemperate habits, had suffered several times from delirium tremens. His constitution was a good deal shattered and he suffered frequently from dyspepsia and intermittent fever. For the last three months he had been more regular in his habits, and enjoyed better health than during the previous nine months he had been under my observation. On June 6th he was bitten by a small dog in the barracks. He went immediately to the hospital, and nitrate of silver was freely applied by the apothecary. The wound healed very quickly; and he thought no more of the matter. The same dog bit four other men at the same time, but was then under no suspicion of being affected with rabies. A few days afterwards, however, the dog became quite mad and was killed. Several pups of the same litter have, I believe, also become mad.

July 20th. He came to hospital about 3 P.M. complaining of a choking sensation in the throat, difficulty of swallowing, and a feeling of constriction about the chest. Being an intelligent well educated man, he described his feelings with great exactness. The apothecary gave him a draught of spirit of ammonia in camphor mixture, which had the effect of relieving him considerably. On going to the hospital about 6 P.M. I found him lying quietly on his cot; but on my entrance he started up and stared wildly at me. I was struck at the time with his wild anxious look. He said that on July 18th, he felt a sensation of numbness creeping up his right arm (it was the right hand that he was bitten), but took no notice of it, thinking that he might have slept on it the previous night. On the 19th, this sensation continued. He did not observe any appearance of inflammation, neither did I at this time (on the evening of the 30th). There was no perceptible enlargement of the axillary glands. On the morning of the 20th, he went to the Regimental Bazaar to drink a bottle of gingerade; but, on opening the bottle, he found that he could not drink it from a feeling of loathing. At intervals during the day he was unable to quench his thirst from the same cause; but as yet he had no marked paroxysm. The most prominent symptoms when I first saw him were a *thickness* of the voice, like that of a person with enlarged tonsils, and an appearance of anxiety and excitement. The vascular system was perfectly quiet. He was ordered the following draught, to be repeated at bedtime.

R̄ Spirit. æther. sulphur., tincturæ opii, āā ṽxxx; spiritus ammon. aromat. ʒss.; mist. camphoræ ʒiiss. M.

July 21st, 6.30 P.M. He said he was considerably relieved by the draughts he had last night. He slept some during the night, but was disturbed by indescribable feelings of anxiety and oppression, which several times caused him to start up from his cot. Today he stated that he could not look at water without a spasmodic paroxysm being induced. I now felt certain of what I formerly only suspected—that the disease was hydrophobia. I talked to him of drinks, and asked if he would like some iced water. A paroxysm was immediately produced, involving the muscles of the pharynx and those of the tongue, the depression of the lower jaw, and the elevation of the larynx. At this time he certainly did not suspect the nature of his complaint, as he afterwards told me, but in describing his feelings he said that "he felt like a dog." I sent the hospital sergeant to the barracks, to make inquiry as to his having been bitten, and thus gained the information above mentioned. He was ordered to continue the draught every third hour, and to have a blister applied to the nape of the neck, through which I intended to introduce morphia. The marks of the dog's teeth on the back of his right hand were plainly visible, of a dusky colour; but I find no evidence of their having become darker at the commencement of the disease, as stated by Dr. Watson to occur at the period of recrudescence. The right hand was very tremulous; the left one much less so.

2 P.M. I now found him much worse. The paroxysms were more frequent and severe, and more easily produced; a draught of cool air from the punkah being quite sufficient to produce a severe attack. He now recollected having been bitten, and concluded that he had hydrophobia and would certainly die. The spasms involved all the muscles of the neck, including the sternomastoids. A tenacious frothy fluid collected in his throat from time to time, and caused considerable trouble in attempting to get rid of it. Dr. Watson says that the so-called barking sound, said to be present in this disease, has its origin in the sounds produced by attempts to get rid of this tenacious mucous substance, which have been likened by ignorance and credulity to the barking and foaming of a dog; but, as I shall presently show, the said barking is no myth; it has nothing to do with the extrusion of the mucus, and has a distinct pathology of its own.

4 P.M. Dr. Carden, Deputy Inspector-General of Hospitals of the Lucknow Field Force, saw him with me. He coincided in my opinion as to the nature of the case, and advised the addition of twenty minims of chloroform to each dose of the former medicine.

6 P.M. The patient said he was better; but this amelioration I concluded to be owing merely to the anæsthetic effect of the medicine upon his feelings, for the paroxysms were quite as severe and more extended than when I saw him before. The respiratory muscles were now involved; and the paroxysm commenced with something like sobbing. The draught was ordered to be repeated at 7 P.M.

9 P.M. He was much worse. The whole chest, the diaphragm, and the abdominal muscles were now involved. The paroxysms were very severe, and a sound exactly similar to the bark of a dog was produced, as I conceive, by the violent expulsion of air through the larynx. The muscles of the larynx itself did not seem to be involved to any extent; certainly, there was no evidence of spasm of the rima glottidis. Perhaps the vocal cords were put upon the stretch; but otherwise, the larynx seemed to be passive, and the sounds to be solely produced by the expulsion of air by the diaphragm and abdominal muscles. On the occurrence of a paroxysm, he instantly raised himself to the sitting posture, and requested the attendants to hold his hands, apparently with a view to give a fixed point to the chest, and lessen the effects of the concussion on the frame. The paroxysms became more frequent and less severe,