SOME ACCOUNT
OF
AN EPIDEMIC
WHICH PREVAILED AT TEHERAN, IN THE MONTHS OF
JANUARY AND FEBRUARY 1842.

IN A LETTER TO GEO. JOS. BELL, M.D.,
TRAVELLING FELLOW OF OXFORD.

BY C. W. BELL, M.D.,
ATTACHED TO H. B. M.'S MISSION AT THE COURT OF PERSIA.

COMMUNICATED BY ALEXANDER SHAW, Esq.

READ MAY 23RD, 1843.

Teheran, 22nd Feb. 1842.

I HAVE had much trouble and anxiety of late, with a very curious new disease, which made its appearance in our neighbourhood, and thence spread to different parts of Teheran.

It occurred nearly simultaneously with an anomalous complaint in Baghdad, and was, probably, analogous. This, I understand, has been described by Dr. Ross, of Baghdad, in a report (which I have not seen) under the title of epidemic *angina pectoris*. I give you, however, an extract from his letter to me on the subject, dated Baghdad, Dec. 30, 1841 :—

“ We have got a most curious disease raging here, just now, more like angina pectoris than any thing else. But it proves fatal in an hour or two. In fact, though eight or ten of my personal friends have died from it, I have not yet been in time to see a case while life remained. You knew several of them while here. Old Mahomed Aghaiba, Chederakee, Ismael Beg, &c.”

The only thing that I have to remark of that disease, before proceeding to a detail of cases, is, that in the one I am about to describe, the fits appeared to be always accompanied by a nervous excited action of the heart and arteries, periodical, but neither preceded by chill nor succeeded by perspiration. Those who suffered from numbness and sleeping of the hands and feet alone, had always more or less palpitation of the heart, at the same time, sometimes amounting to pain.

The first patient I saw, which was a short time before the receipt of Dr. Ross's letter, was Syad Khan, who happened to be my neighbour. Having stomach-ache, to which he was subject, he took ten drops of the oil of peppermint, instead of the spirit which he was in the habit of taking, and it produced inflammation of the stomach. I applied 30 leeches to the epigastrium, by which, and other means, the inflammation was subdued. He was convalescent and in good spirits, only considerably reduced in strength, when he was suddenly attacked, about ten at night of the 20th of January, with a fit resembling epilepsy; became insensible, and died in half

an hour. I saw him in this state, convulsed, the mouth drawn to one side, moaning and insensible, pulse quick, but rapidly sinking. I was wholly at a loss to account for his death, and imagined fifty things ; but a *post-mortem* examination was out of the question.

At this time anomalous local pains, some like tic douloureux, were becoming remarkably prevalent.

On the 23rd January, Mr. R., æt. 40, accountant to the mission, of gouty diathesis, who had been formerly subject to ague, and latterly every six or eight months to plethora, complained that he had suffered much from headache for some days, and that last night, on putting his feet into warm water, the left foot was seized with numbness, as if asleep. At present, however, the pulse is good and soft, and he has no particular symptoms : ordered 2 pills of calomel and colocynth at bedtime, and compound jalap powder in the morning.

23rd.—Last night, at midnight, was seized with excruciating headache, and spasms, and numbness of the left leg and arm ; the pain continued severe till 8 a. m., when it gradually abated. The medicine operated only once. To repeat the dose at night, and take salts and senna in the morning.

24th.—Has had similar attacks of pain and numbness of the whole of the left side, last night exactly at 12, and at 10 in the morning. Although somewhat relieved since 8 o'clock, has still much headache and some numbness of the hands. The medicine has operated little. Pulse full and bounding,

v. s. ad 3xx. Five grs. of calomel immediately, and castor oil two hours afterwards. This produced two full evacuations.

25th.—The pain returned at midnight, but was less severe, though continuing more constant in the morning. The spasms and sleeping of the left side the same as in the preceding night. To take ext. colocynth comp. gr. v and ol. croton $m \frac{1}{12}$, immediately and at noon; after which, every two hours, to take a grain of quinine, and two at 11 p. m.

26th.—Nightly accession of headache much less, but the numbness of the leg and arm came on at the same hour. To take rhubarb and magnesia 3j immediately; and from 2 in the afternoon, to take one grain of quinine every hour, and three at 11.

27th.—Has still headache, the pain shifting a little to the cheek; had no accession at midnight, but still has sleeping of the leg and arm at the same hour. He went to office for an hour or two, but felt giddy, and had several spasms in the hands.

At four and a-half p. m. was suddenly seized with a fit like epilepsy; convulsions; face and breast became mottled purple; pulse good, without much power; hands and feet cold. He recovered his consciousness in a few minutes, but above an hour elapsed before the memory was completely restored. The pulse getting low, he had some spir. ammoniæ aromat. in water, and hot fomentations to the stomach. The headache continues severe, but the senses perfectly restored.

10 p. m.—Suddenly attacked with a second fit ; face drawn to the left side, right arm and side affected with spasms, left apparently paralytic, frothing at the mouth and stertor, insensible. This attack lasted about ten minutes, the pulse bounding with extraordinary excitement—consciousness had already returned before v. s. ad 3xx was performed. Has had no motion since yesterday forenoon. *Capiat statim ol. croton tigllii ℥j, ex olei ricini 3℥s.* This was vomited immediately. A dose of scammony and jalap was then given, which was retained an hour and then vomited. Expecting another attack at twelve, I took care to be present a few minutes before the time, when, exactly at the hour, he was again attacked, more severely than before. Powerful convulsions of one side ; for a short time, quite purple in the face and chest. Two or three severe opisthotonic spasms, and horrid grinding of the clenched teeth, as in tetanus. Total insensibility—pulse about 90, very powerfully excited, so much, that although convinced that this disease was purely nervous, and little likely to be benefited by bloodletting, and that when this violent excitement passed, it would be succeeded by a condition of proportionate feebleness and prostration, yet I found it absolutely necessary to bleed again, in order to protect the brain. This time sensibility returned more slowly, with expressions of intense suffering from pain in the forehead. To have an injection of *magnesiae sulph. 3j ; ext. colocynth co ; pulv. jalap. rad. āā ʒj ;* in warm water, immediately.

2 a.m.—Has vomited three times frothy mucus. Injection retained—repetatur enema; calomel gr. v. statim.

28th., 10 morning.—The second injection brought away little but the first one. Foetor of breath, either from the calomel or from the tongue having been severely lacerated in the last attack of convulsions. Still much excitement of the pulse, although less in power and volume. Headache excruciating, till eight a. m.; when, as usual, it abated, though still severe. Some pain in the region of the heart, the excited action of which is singular. Bowels not free. Borax lotion for the mouth. Enema of jalap and colocynth, āā ʒj; and to take every two hours one of the following pills,—℞ ferri carb. ʒss; assafoetidæ ʒj; fiant pilulæ x. A blister to be applied to the region of the heart.

4 p. m.—The enema brought away a little dark foetid matter. There is much drowsiness and disinclination to move; but he is perfectly sensible—headache gone, and no numbness, but weakness of the limbs; pulse gentle, soft, and weak—wholly free from excitement—some pain in epigastrium, slight hiccough, but no return of vomiting since commencing the pills. The enema to be repeated, and to take a glass of wine with arrowroot.

12 p. m.—The enema brought away some dark fluid, smelling of assafoetida: no attack to-night—omit medicines.

After this he took, for a couple of days, carb. ferri ʒj, in syrup of ginger, twice a-day, which acted

gently on the bowels;* and, except having for a few days a good deal of feebleness, he has since been perfectly well.

Baba Beg, æt. twenty-four, of florid complexion. On the night of January 27, on returning from Mr. R—'s, I found this man recovering his sensibility, after having had two successive *fits*, which he says were each time preceded by great palpitation and painful oppression of the heart; the pulse is now 85, excited and bounding, but without much power. He has been disturbed for some nights past about the same hour, by sleeping of the right arm; and two nights ago, had a slight fit. His fellow-servants tell me, that during the fits his hands were convulsed and face distorted. Ordered compound jalap powder and calomel.

28th.—Purged five or six times; to take ten grains of carbonate of iron, and repeat it in the afternoon. After this he had no return of symptoms.

Rassool, æt. thirty, my head groom, a spare man, 24th of January, complained of much pain and tenderness of the ears and parotids. I had several patients at this time who complained of the same thing. Ordered Epsom salts $\mathfrak{z}\text{j}$ immediately—five leeches behind each ear.

25th.—Medicine operated frequently; he feels

* This is a curious fact, which I have observed throughout the whole of the diseases of this year—that while, as frequently happened, none of the usual purgatives produced their effect, a small dose combined with iron acted immediately, as scammony gr. v. ferri carb. gr. x., or ferri sulph. gr. j. aloes gr. ij.

better, but there is still much tenderness and pain—has been disturbed for the last two mornings, by the arm and leg of one side going to sleep a little before daybreak—countenance flushed, pulse 90, v. s. ad 3vij.

26th.—Pain easier, hands still sleep in the morning,—compound jalap powder ʒj immediately, and ten grains of Dover's powder after the third motion.

27th.—Has been freely purged. Occasionally great numbness of the limbs, and headache; in the evening was said to have fainted.

28th.—Still purged, looking worn, pulse much excited, numbness of both legs and one arm; severe headache—cap. ferri carb. gr. x; et repetatur post horam.

Evening.—Has been purged several times since morning, and has not taken the powders; headache very bad. Ordered pills of assafoetida, sulphate of iron, and opium, every two hours.

Midnight.—Pain in head excruciating; lower limbs insensible, in a state resembling paraplegia, and one arm quite numb—shows great disinclination to move, has refused all medicine, wishes to be left to die—said to have been twice insensible—purging still continues—forced him to take two of his pills.

29th.—Last night, having found himself better after the pills, continued to take them till morning, and is now free from headache and numbness, and all excitement of the pulse is gone. To omit medicines, and to take carbonate of iron, one scruple, in the afternoon; had no return of the symptoms.

I have stated these first cases that occurred to me in detail, to show how completely I was at a loss as to the treatment which ought to be pursued. At length, three people, under my own eye, were attacked, almost at the same hour, with fits, which I could not help recognising as similar to those of which I had seen Syad Khan die. On that day, numbers had also applied to me with nervous pains, headaches, pain in the region of the heart, and nightly sleeping of the hands and feet. Venesection seemed to do harm, as well as all reduction of the system: in the two first cases, loss of blood was followed by fatal attacks. In the third and fifth, when blood had been drawn, the disease was severe. In Mr. R.'s case, quinine, as I administered it, was evidently not to be depended upon. Purgatives seemed to do no good; and in Rassool's case to do harm. What was then to be done?

I reflected that all the different cases had one thing in common—that during the fit, the arterial system was intensely excited without either feverish skin or hardness of pulse: that this excitement must be purely nervous, for the pulse was at another time as soft and quiet as during the access it was excited and bounding. I therefore determined to trust to assafoetida as an anti-spasmodic during the fits, and to hope something from the power which iron possesses, of counteracting irregular arterial action (especially in the spleen and uterus). I little expected to find these remedies so valuable as they afterwards proved.

Mesmedee Hassan Jelowdar had complained for some days of rheumatism of the knee and shoulder ; was treated with colchicum and Dover's powder, without benefit ; had then pain in the region of the heart, shoulder-blade and left arm ; action of the heart much excited. Pulse about 90. Could detect no peculiar sounds in the heart, but as a measure of precaution against pericarditis, he was bled and put upon calomel and opium.

26th January, the pain in the region of the heart, the scapula and arm, and in the knee, is more severe ; his pulse is not like that of pericarditis, nor are the other symptoms—no fever—complains also of sleeping and insensibility of one side at a certain hour of the night.

27th.—To omit the pills and to take calomel gr. v at night. Pulv. jalap co. in the morning.

28th.—Has not been freely purged. Complains of increased pain in the left breast and shoulder, and the numbness of the hands and feet more constant and annoying. Countenance anxious. To take ferri carb. gr. x scammonii gr. v statim et ferri carb. ʒj vespere.

29th.—Bowels freely opened and the numbness ceased—no return of that at night, but still pain in the breast, and excited action of heart considerable. After a few more doses of iron this gradually subsided, as well as the pains in the knee and shoulder.

Saduck Khan, æt. about 28, a very powerful man, a wrestler, subject of late to attacks of ague, quartan, tertian, and quotidian, on which quinine has had

little or no effect. Has complained of the leg and arm going to sleep for several successive nights, and has spasms of the thumbs. To take calomel gr. v for three successive nights.

27th January.—Mouth touched by mercury—ague gone, and numbness of the leg and arm has ceased.

28th.—Has again had numbness of the arm and leg. To take two scruple doses of carbonate of iron. After this he had no return of his symptoms.

29th January.—A woman about the age of thirty, who had some days ago taken ℥viii of castor oil, instead of as many drachms, was weakened by purging, but was regaining her strength. Is said to-day to have had three successive fits of fainting. She has pain and numbness of both arms, like paralysis, but has no tingling sensation. Pulse rather weak. Ordered ferri carb. ʒj stat. et repetatur vespere. If she has a return of the fit, to have an enema of ʒij of assafoetida. Had no return of the fit, and the numbness ceased soon after the first dose of iron.

Kutchuk Khan, nicknamed the little, from his enormous size and corpulency, having fallen into a fit, with convulsions and insensibility, his people became alarmed, and sent to me for medicine, and at the same time to the chief physician, or Hakim Bashee, to come quickly, as he was dying. Being from home, my apothecary gave them a dose of iron, which was administered immediately. In about an hour, when the Hakim Bashee arrived, and found his patient conversing merrily with his friends, he was excessively indignant at having been sent for on a

fool's errand ; for they having with sufficient accuracy described a severe attack of apoplexy, while he found the man in apparently perfect health, nothing could persuade him that they were not what is called here, laughing at his beard.

M. T——, a French cavalry officer, of florid complexion, having, about the time when this complaint first made its appearance, what were thought to be threatenings of apoplexy, was bled by the advice of the medical officer to the Russian mission. After this, he had a very severe fit, remaining many hours insensible ; his servants continued assiduous in rubbing him, and he came to himself. He was again bled. Every night he had sensations of numbness of the leg and arm of one side, and twice again had fits, but less severe. He had suffered thus for 8 or 10 days, when he consulted me : I gave him two scruple doses of carbonate of iron ; the first with 6 grains of scammony to be taken at noon, the other in the evening. That night he had no return of the numbness, nor did he experience it afterwards.

A few other cases of fits occurred, but having now lost their interest, I preserved no notes of them. A great number of people however, I may say almost the mass of the population in this immediate vicinity, were affected for some nights with sleeping of the leg or arm of one side. I experienced it myself, and found the sensation and the unnatural excitement of the heart extremely unpleasant ; but it ceased after taking a dose of iron.

I found on inquiry, that at this time the complaint was confined to a narrow line of this and the neighbouring district. For some days, I saw and heard no more of it, till perhaps a week afterwards, when I was at the furthest extremity of the town visiting an hysterical patient who had symptoms of the same disorder. I was called to see Mirza Saleh, who had been discovered lying in his own room, insensible. When I arrived, he was beginning slowly to recover his senses, and could be roused a little: but as he continued drowsy and stupid, I ordered him an enema of ʒii of assafoetida, and left him for a while. As no one had seen him at the commencement of the attack, I could not learn whether he had been seized with spasms or not. On my return two hours afterwards, I found him talking of his grievances in English with the Hakim Mirza Baba, in a very excited manner. I recommended him to take two doses of iron, and he had no return of his symptoms.

It was not till the 25th of February, and in another distant quarter of the town, that I saw another case of this complaint. On the evening of that day, on coming home, I found a note from Dr. Kapherr of the Russian mission, begging me to come without delay to see M. B——, a French officer, commandant of a detachment in the service of the Shah. The commandant is a man of very quiet habits, aged about forty-five. Head rather large and neck short. I found him on my arrival

in a state of insensibility, the mouth drawn to the left side, and that side of the body paralytic. He had been in this state about six hours, but little account of his state previous to the attack could be collected from his servants. The pulse was rapidly sinking and nervous—now quick and irritable, now soft, weak and scarcely perceptible. A few teaspoonsfuls of æther. sulph. co. were given, and some 5 or 6 ounces of blood drawn from the arm, after which the pulse became steady. He now had an enema of ʒij of assafoetida, which was retained—and he continued in the same insensible paralytic state till 2 a.m., having been comatose for about fifteen hours. He then awoke as from a sleep, and walked to stool. In the morning I found him perfectly sensible, and nothing remaining of the paralysis but a sense of weariness in the limbs. He then took ol. ricini ʒifs, and had no return of his complaint. According to his own account, early in the morning he had been seized with the most urgent desire to make water, but found himself unable to do so—he continued to make frequent attempts in vain, and the agony of the urgency he describes as insufferable, until he lost his consciousness (apparently about 11 a.m.). When the injection operated, the water came without difficulty. He had no subsequent headache, nor any premonitory symptoms, such as sleeping of the hands or feet.

At another time, I should have considered this an attack of apoplexy, which from his appearance

one would esteem very probable. But taken along with the previous cases, and considering his general health, both before and after the fit, I think it may, without doubt, be classed with those I have described. This was the last case of this disease which I heard of.