DELIRIUM TREMENS, TREATED AS A NERVOUS DISEASE.

By MICHAEL RYAN, M.D., one of the Physicians to the Central Infirmary, Greville Street, Hatton Garden, Lecturer on Midwifery.

HENRY SKEANE, ætat. 23, (July 23, 1827,) a grocer, of short stature, pale, and sallow complexion, has indulged much in the use of spirituous liquors for the two preceding years, and is now, after a debauch, labouring under the following symptoms: constant tremors of superior and inferior extremities, which are cold and clammy; face purplish; countenance wild and anxious, as if frightened; eyes glassy; lips tremulous; speech interrupted; language most incoherent and hurried; starts up suddenly in bed, and wishes for his clothes; three persons are attendant on him, to keep him quiet; pulse 80, full, and soft, and with difficulty counted, from his excessive restlessness; no headach; bowels open; has vomited a considerable quantity of greenish fluid; thinks himself in good health; wishes for his clothes, as he thinks he is in a strange house, in order that he may go home, and is talking most incoherently. Such were the symptoms.

At five, P.M., he had the following mixture:—

Peppermint water, six ounces;

Black drop, (*Braithwaite's*), thirty minims equal to 120 m. t. opii; half an ounce to be given every half hour, unless sleep supervene.

Seven, P.M. Has taken the medicine (which did not arrive for some time after last visit) four times; is much more tranquil, and seems drowsy; vomited a greenish fluid a few minutes since; spilled the remainder of the medicine; is very unmanageable. Let him have

Carbonate of soda, four drachms;

Spearmint water, eight ounces;

Black drop, thirty minims; an ounce, with half the quantity of lemon juice, every half hour, until sleep be induced.

Ten, P.M. Pulse 8½; has taken six ounces of the mixture, which contained equal to 90 minims of t. opii, with 40 at my former visit; in all, 150; no tendency to sleep; restlessness diminished; no vomiting since last report. Let him continue the effervescing mixture during the night, unless sleep supervene; and let his feet and legs be fomented with a strong warm decoction of mustard, in the proportion of one pound of mustard to one gallon of water, boiled for twenty minutes.

July 29. Eight, A.M. Second day. Slept only half an hour, though he took the mixture without any vomiting. Since seven last evening, to this time, has taken 60 minims of black drop equal to 240 t. opii. Since four, P.M., yesterday, he has taken 90 minims of black drop, equal to 360 t. opii. He may have vomited the first 30 minims, still the quantity taken amounts to four drachms of t. opii. Pulse 84, soft, and regular; no stertorous breathing, but redness of the eyes; however, he has been up two nights previous to his attack; tremors and wildness are much diminished. Bowels confined. To have twelve leeches to the forehead and temples, and six pills, composed of

Compound extract of colocynth, half a drachm; *Submuriate of mercury*, twelve grains; two to be taken every third hour, to purgation.

Eight o'clock, P.M. Leeches bled well; bowels relieved; pulse 68; tremors nearly gone; cannot protrude the tongue; wildness continues; no tendency to sleep. Repeat the opium; let him have

Alkaline mixture, eight ounces;

Black drop, thirty minims, equal to 120 t. opii;

Tinct. of henbane, sixty minims; one ounce to be given with lemon-juice every half hour, until sleep be produced, which is the most favourable termination of the disease, according to Blake and others. Mustard fomentations to legs.

July 30. Three, A.M. Third day. Has been outrageous since midnight, and talking incessantly of devils, robbers, black angels, &c. No sleep; taken five ounces of the mixture, which contained 112 drops of t. opii; is now more tranquil; pulse very rapid; answers questions rationally, but breaks off into exclamations about dogs, men, ropes, &c.; is constantly starting up in bed, and pointing these out; complains of cramps and coldness of his legs; is covered with cold clammy perspiration. These symptoms I ascribe to his disease, as the state of the pulse, eyes, respiration, and bowels, are different from the effects of narcotics. Let him continue his mixture, and have some port wine and water during the day.

Twelve. Noon. Called suddenly to see him, as he is more furious than ever, and three persons are endeavouring to keep him in his chamber; mental hallucinations greatly increased; constantly exclaiming about devils, hell-fire, soldiers firing at him, &c.; tremors of hands and feet very great; eyes yellowish, and look wilder than before; has taken eight ounces of mixture since nine this morning, containing thirty minims of black drop, and sixty

minims of t. henbane ; pulse 120, soft, and quick ; profuse perspiration. Has taken narcotics as stimulants, for they were administered in small repeated doses ; since I first saw him, he has taken more than an ounce of t. opii, without causing any effect. I now determined to exhibit his usual stimulus, as I considered the case extremely hopeless.

Ten minutes past twelve. Exhibited one ounce and a half of whisky in three ounces of warm water, and some sugar, as warm as possible ; the tremors are such, that he cannot hold the vessel in his own hand.

Twenty minutes past twelve. Is much more tranquil ; tremors diminished ; hallucinations continue, but less violent ; relished his favourite beverage ; pulse 100, full, and soft.

One, P.M. Administered three ounces of the spirit in the same quantity of water, as hot as possible ; left him even more tranquil.

Two, P.M. Is nearly unaffected ; tremors gone ; face pale ; pulse 84, full, and natural ; thinks " he will sleep."

Repeat last beverage, which he took with avidity, and lay down to sleep.

Half past seven, P.M. Remained tranquil for an hour after last visit, then became restless, and endeavoured to get out of bed. Pulse now 120, full, and soft ; not much anxiety of countenance ; tremors less ; not so bad as in the morning ; face natural ; speaks incessantly. Let him have

Camphorated mixture, six ounces ;

Sulphuric ether, four drachms ;

Black drop, thirty minims ;

Acetous tinct. of opium, thirty minims ;

Honey, one ounce ; dose half an ounce every half hour to somnolency.

Ten, P.M. Became very violent ; has had one hour's sleep, and taken the mixture ; is more collected. Repeat the mixture, and let him have port, porter, whiskey and water, in small quantities, during the night.

31. Seven, A.M. Fourth day. Slept for one hour ; continue medicine and regimen.

Ten, A.M. Has slept nearly two hours. Continue all.

One, P.M. Slept since last visit ; continue.

Ten, P.M. Has slept eight hours ; is quite rational ; can now protrude the tongue ; wishes for bottled ale ; omit the medicine.

From five, P.M., on Saturday, to ten, P.M., on Tuesday, seventy-eight hours, he has had equal to 960 minims, or twelve drachms, of laudanum, between black drop, henbane, and acetous tincture of opium ; and, with this, five ounces and a half of ardent spirit at a time ; his delirium was at the highest pitch.

August 1. Ten, A.M. Slept eleven hours since last visit, with two bottles of ale ; pulse 80, soft, and full ; is quite well.

2d. No complaint ; appetite returned ; to sit up for three hours.

3d. Is in his shop attending to his business.

Observations on this Case.—From much consideration of the works of Dr. Sutton, Armstrong, Playfair, and Blake, in the Edinburgh Medical and Surgical Journal, 1823, and from my own observations on six other cases of this disease, I think that it arises from nervous excitement, and not from congestion or inflammation of the brain, as maintained by Dr. Clutterbuck's Lectures in THE LANCET, vol. xi. p. 376, and therefore I urge the opium. I preferred the black drop in this case, as I could not depend on the tincture of opium of the person who supplied the medicine.

Did this man's disease depend on vascular congestion, or inflammation of the brain ? If on either, the treatment must have destroyed him. I mentioned the particulars of this case in a correspondence I had with the Editor of the Edinburgh Medical and Surgical Journal. See the No. for October, 1827, and also the further history of it, which I now subjoin. See the No. for January, 1828. This man married in a short time afterwards, and was attacked with all his former symptoms, in the October following. I administered warm whiskey and water from the beginning, and no other medicine, and restored him to perfect health. He had another attack in February last, but was fifty miles from home, and three medical men declared he had apoplexy. He requested his usual beverage, and asserted I had cured him with it on two occasions, but he was declared mad, and bled to forty ounces. He was one day ill, and died in the evening after the bleeding. Had he apoplexy or delirium tremens ?

I have treated two other men labouring under this delirium, in the same manner, since ; to each I gave his usual drink ; whiskey and water to the one, and bottled cider to the other, and no opium ; and each recovered on the fourth day. I apprehend the usual stimulus is much better than opiates in this disease. I saw a case of erysipelas of the face and scalp which happened to a notorious tippler. Arteriotomy, cold applications, &c., were freely employed ; effusion took place ; vision was lost ; the delirium strongly resembled that under consideration ; two other medical men declared the case hopeless ; I administered whiskey and water, his favourite beverage, and the man recovered. Two such cases are related by Sir Astley Cooper, in his Lectures in THE LANCET, 1824, vol. i.

Mr. Blake observes in his valuable remarks on this disease, in the *Edinburgh Medical and Surgical Journal*, 1823, that there are three stages, one of debility, one of excitement, and one of collapse; and that when the disease is to terminate favourably, the pulse seldom exceeds 100, and sleep takes place on the fourth day. He remarked this in ten cases, and sleep certainly supervened with three of my patients about the same time, although the pulse exceeded 100; they all recovered. I knew a very strong robust publican, who was bled largely, and did not recover. This disease was said to be caused by inflammation of the brain, in the year 1813, when Drs. Sutton and Burton Pearson wrote upon the subject. It is the *brain fever* of older writers. The profession seem now unanimous in exhibiting small doses of opium repeatedly, and diffusible stimuli, in the treatment of this disease, but I am unacquainted with any practitioner who depends solely on that kind of liquor, in the use of which the patient has been accustomed to indulge. If the disease arise from the intemperate use of ardent or fermented liquors, and be the effect of excessive nervous excitement produced by them, the best treatment must be to exhibit that species to which the system has been accustomed, in order to restore wonted stimulus, and allay the inordinate functional derangement of the nervous system. We know that delirium may arise from hunger, from excessive uterine hæmorrhage, and in the last stage of typhus fever, and that such delirium is best relieved by cordials, and a cautious, though steady administration of diffusible stimuli. In the first form of the disease, a cautious administration of cordials, and proper nutriment, will restore the patient. Again, in the delirium nervosum, or nervous delirium, recently described by Baron Dupuytren, and perfectly analogous to delirium tremens, (see *LANCET*, Aug. 2, No. 257,) we are informed "that sedatives of every kind, and in every form, blood-letting *ad deliquium*, and all other means have been tried, without any good effect. The only means of cure are injections up the rectum of sixteen or eighteen drops of tincture of opium, repeated two, three, or four times every six hours." M. Dupuytren explains the curious fact, that the small quantity of the opium taken into the stomach produces no effect, whilst it is so efficacious in the rectum, by the absence of the digestive powers in the latter, and the absorption of the medicine, unaltered, into the system. In the practice of obstetric medicine, injections are thrown up the rectum, often containing sixty drops of tincture of opium, and with very little effect in relieving urgent pain; and how reconcile this with the principles advanced by the eminent surgeon

in chief of the Hotel Dieu? Again, we know that a grain of opium taken into the stomach, will often relieve the most severe tormina and tenesmus in dysentery; it will scarcely ever fail, if repeated two or three times in the course of twenty-four hours. In physiology, as well as physics, perhaps there is no general rule without an exception.

68, Hatton Garden, Aug. 25, 1828.

ERGOT OF RYE.

To the Editor of THE LANCET.

SIR,—I have sent the following cases for insertion in THE LANCET, provided you think them worth the space they may occupy in that truly valuable publication. The first is a striking instance of the medicinal powers of the ergot of rye, and at the same time conveys a useful lesson with respect to the circumstances under which it might become a most dangerous remedy.

The subsequent cases fully corroborate the statements made by Dr. Elliotson in your Journal, respecting the administration of hydrocyanic acid in painful affections of the stomach.

I am, Sir,

Your very obedient servant,

J. C. JERRARD.

Honiton, 17th Aug. 1828.

CASE 1.—A woman, about 35 years of age, well proportioned, but rather of a stout make, had been in labour with her first child 24 hours at the time I was sent for. I found the presentation natural, and the os uteri nearly of the size of a halfcrown. The pains had recurred at intervals of about half an hour, and continued to do so during the succeeding 24 hours, at the expiration of which period, the os uteri was in much the same state, and scarcely affected during the continuance of the pains. At this period (about 48 hours from the commencement) the pains, which had been from the first very inefficient, began evidently to lessen in force and frequency, the intervals now being upwards of half an hour. I sent for some ergot of rye, and having infused ʒj. in a tea-cupful of boiling water till it was nearly cold, I gave about three-fifths of it to my patient immediately after a pain. In ten minutes she had a pain, which I thought somewhat stronger; in ten minutes more, a pain, evidently of an expulsive character, came on; in less than five minutes more, she had one of the strongest pains I ever witnessed, during which I found the os uteri much acted upon, and the membranes beginning to