

no hesitation in saying, that the inflammatory appearances of the nerves exhibited in this case, do not give us the slightest reason to hope that opium can do any good; and the reported failures in the attempts to obviate them by copious depletion, justifies the opinion that the mischief is produced by the poison acting directly upon the nerves. Whether this is slowly generated during the interval between the bite and the appearance of hydrophobia, or whether it remains undeveloped in the original wound till it is called into action by some cause, it may be for ever impossible to ascertain; but if either of these be the real cause, it is at least one step gained towards a more accurate knowledge of the disease. Do these observations suggest the propriety of keeping up the discharge by the use of caustics, longer than has generally been considered necessary? There is always so great a dread of the disease, and such a desire in the patient to deceive himself, and attribute the early symptoms to some other than the real cause, that it is unlikely that advice will be applied for as long as the patient can control the spasms, and prevent them from being observed by his friends. The power of drinking which Mr N. retained almost throughout the disease, must be attributed entirely to the strong powers of his mind; and there is no doubt that he had convinced himself, as he knew this was the distinguishing mark of the disease, that, if he could continue to swallow fluids, he should subdue it.

I regret that we have hitherto received no further account of the success of Dr Brera in the treatment of hydrophobia, by the internal use of belladonna, as communicated by Dr Traill. The reported results were so extraordinary, that they require strong confirmation.

In reading this case, it will be evident that it is in a great measure drawn up by Mr Halton; and his account of the dissection was compared with, and some additions made from, the notes I took at the time.

*Liverpool, February 11, 1825.*

---

## II.

*A Case of Hydrophobia.* By D. CAMPBELL, M. D., Physician to the Lancashire Lunatic Asylum.

CASES of *Hydrophobia*, which were formerly extremely rare, having unfortunately, of late, become more frequent, I



have been induced to transcribe a case of that disorder, which came under my inspection nearly thirty years ago, as possessing some interesting features of that distressing disease.

SAMUEL WEBB (butler in the family of a lady of rank in Lancashire), aged 33 years, was bitten on the naked wrist, and the leg, by a dog supposed to be mad; and which, being tied up, died convulsed in the course of a few days. The lacerations were considerable, and penetrated deep amongst the tendons, and close upon the artery at the wrist. Twenty hours after he had been bitten, he applied to Dr Low of Preston, who, finding from the situation of the wounded parts, that it was impossible they could be taken out by the knife, without producing the most terrible consequences with respect to the artery and tendons, directed the wounds to be cauterized with irons heated as hot as possible, and introduced quite to the bottom. After which the holes were filled with powdered corrosive sublimate, which occasioned a great degree of inflammation; and large sloughs were formed, which, being cast off, produced ulcers, which continued to discharge until the period of the commencement of the disease. Besides these precautions, he also took the Ormskirk medicine; and, that there might be no doubt as to the preparation being genuine, he went over to Ormskirk and received it from the hands of Mr Hill, and very punctually observed every direction that was given him on the occasion.

On Monday the 14th of September (about eight weeks after the bite), he was seized with headach and rigors, and other symptoms of fever, for which he took an emetic, and afterwards a sudorific. The next day he complained of a weight, numbness and uneasiness in the arm affected, with considerable pains shooting into the neck and back part of the head. Dr Low, who attended him, however, apprehensive of the true nature of the complaint, yet being willing to look at it in the most favourable light, was disposed to hope that these pains might be rheumatic; and upon this principle directed about eight ounces of blood to be taken from the arm, and a few grains of James's powder, with a grain of opium, to be given every six hours. The blood that was taken exhibited no marks of inflammatory diathesis. On Wednesday he experienced a difficulty in deglutition, especially with respect to fluids, and that in proportion to their degree of fluidity. Water, or wine and water, occasioned the most uneasiness; ale not quite so much; and he continued to get down jelly and flummery for a considerable time after he was unable to swallow either of the former. Convulsive motions of the limbs and body now came on at times, and agitated him considerably.



I saw him about twelve o'clock on Thursday night. He appeared collected as to his mind, and perfectly sensible of the nature of the complaint; and, looking for a fatal termination as the necessary consequence, settled his affairs in the most rational manner. His eyes were hollow and dull, his countenance pale, and expressive of great distress. A profuse perspiration flowed from the whole body, apparently occasioned by the violence of the convulsions recurring at intervals, and which required, at these times, several men to hold him down in bed; not that he had any inclination to get up, but, from the manner in which he was affected, he was in danger of being involuntarily thrown out of it. His pulse was about 120 strokes in a minute, and weak. He said he had so great a difficulty in swallowing fluids, that the very thoughts of it occasioned the most painful sensations. Upon being asked to describe the kind of sensation excited, he said it seemed as if there was no passage, and the attempt gave rise to a heat which extended to his finger ends. He complained much of faintness, and sense of want at the stomach (probably arising from his having taken scarcely any food since Monday), and expressed a wish for a little ale, which he said he would try to get down. Upon bringing some in a spoon towards the lips, the muscles about the mouth were thrown into spasmodic contractions, and the hand was, for several times as it were, involuntarily repelled in approaching it; at length, seeming to muster up all his strength and resolution, he forced the spoon within his lips, and made an effort to swallow. The fluid appeared to descend only a part of the way, when it met with some resistance, which forced it back, with a cough. He repeated the trial two or three times, with the same event; and it appeared to occasion so much uneasiness, that he never afterwards made any farther attempt. Fluids did not appear to be in any other respect productive of disagreeable sensations, except from the apprehensions of being to try to swallow them; as he put his hand into a bason of cold water, observing, at the time, "I have no dread of water, you see it does not affect me in the least."

Upon taking a view of the case, and reflecting that the methods of treatment which had been recommended by different authors were so various, so opposite, and had so often failed; and, when said to be successful, rested their claims upon perhaps a single instance where the cure might be attributed equally to the efforts of nature, we agreed to direct our practice to the combating that set of symptoms which the disorder then exhibited, which was evidently that of convulsions and spasms, and appeared to be of the same class with locked jaw and teta-



nus;—the spasm seeming to be permanent with respect to the parts inservient to deglutition, whilst the convulsive motions, which extended to the whole system, were of a less fixed nature.

As he was so much exhausted from inanition, we proposed giving him two hundred drops of tincture of opium in a glyster of broth, to apply a blister to the whole anterior part of the throat, and to get down ten grains of musk in the form of a pill, as he still continued to swallow a little jelly. About two o'clock on Friday morning he swallowed ten grains of musk with some difficulty, and said he felt it warm in his stomach; but when the other parts of the proposed plan came to be applied, he unexpectedly refused to comply. Having taken it into his head that persons in his situation were often put to death, he could not be persuaded but that which we proposed to do was for this purpose. These ideas had so forcibly possessed him, that, finding it impossible to bring him to comply by common means, some hours were lost in attempting to reason him into an acquiescence. But at length perceiving that the complaint had taken a maniacal turn with respect to his reasoning on this subject, it was determined to use force in the application of what was deemed necessary. By this time, however, the symptoms of approaching dissolution, such as cold extremities, pulse at the wrist as small as a hair, and rattling in breathing, had made their appearances, and he died soon afterwards.

I have to add, that he never slept from the time of his being first attacked on Monday; and that, during the whole progress of the disorder, he was so far from showing any appearances of a ferocious or mischievous disposition, that he was extremely fearful lest his attendants should receive any injury, desiring them, in the intervals of his convulsions, to hold him in such a way, that, when he had not the command of himself, he might not unknowingly bite them; and particularly requested that the handkerchiefs with which he wiped his mouth might be burned, lest the saliva with which they were moistened should be infectious.

For some hours before his death, he occasionally vomited a brown frothy fluid, which appeared to be the gastric juice tinged with the musk he had got down; and however impervious the œsophagus was to the healthy act of deglutition, there appeared no obstacle to the morbid one of passing fluids from the stomach by vomiting. But whether this be peculiar to the disorder, or merely arose as a consequence of that relaxation of muscular contraction which occurs a little time before death, I am unable to determine, as about that period he mentioned



that his urine (and other secretions) came from him involuntarily.

I shall now add a few *remarks*, which appear to arise from reviewing the case.

1. That it affords another instance of the inefficacy of the Ormskirk medicine. \*

2. It shows the necessity of as early an application as possible of the means of prevention which are to be used with respect to the parts which have been bitten, since the poison may be absorbed, and in the course of a few hours conveyed to such a distance from the wound as not to be accessible by the most powerful caustics or drains, and whence even the knife perhaps would not be able to eradicate it.

3. That the poison appears to act particularly on the nervous system, occasioning convulsions and spasms very similar to those which are apt to terminate in locked jaw and tetanus.

4. That a maniacal state of the brain is also liable to be induced, which, viewing objects through a disordered medium, is to be treated with that kind of compulsion which is proper in in such cases.

5. That the constant use of the cold bath, or bathing in the sea (which has been so much recommended by Dr Mead), may, in the interval betwixt the time of receiving the bite and the usual period of its producing hydrophobia, be advantageously employed as a prophylatic; since, by giving a greater tone to the system, and diminishing the irritability of the nervous part of it, additional power will be acquired to resist the morbid impressions when they begin to exert their influence, perhaps sufficient to counteract them altogether.

6. That when, from the peculiarity of the disorder, it is not practicable to introduce medicines into the habit by the stomach, such powerful antispasmodics as *opium* and *tobacco* may be given by *glyster*, which may possibly, by their medical action, overpower the morbid action which is the cause of the disease.

---

\* What is called the *Ormskirk Medicine* was formerly in high estimation as an antidote for the bite of rabid animals; but it has now fallen into, I believe, merited disuse.