AN ACCOUNT
OF A
CASE
OF
T E T A N U S
SUCCESSFULLY TREATED
IN THE
YORK MILITARY HOSPITAL, AT CHELSEA,
By M. A. BURMESTER, Esq.

Read Feb. 6, 1821.

THE subject of this case was a stout healthy young man, nineteen years of age, who only a few days before his admission into the York Military Hospital, on the 23d day of November last, had enlisted into the fourth regiment of light dragoons. Upon his admission, he appeared to labour under symptoms of simple continued fever, which he attributed to exposure to cold and wet. He was bled, purged, and the usual plan of treatment for such cases was pursued.

Nothing peculiar was noticed until the 30th of November, when he complained of considerable

increased pain in his head, particularly at the back part, extending downwards between the shoulders, accompanied with sudden, violent and frequent startings, difficulty in deglutition, and inability to open the mouth. His tongue getting between his teeth had been lacerated by the convulsive motions of the jaw, and the head was drawn forcibly backwards. His skin was hot and dry, pulse full and strong, bowels costive, and he complained of insatiable thirst.

These formidable symptoms, indicating the presence of tetanus, led to particular inquiry, when the abdominal muscles were found hard and rigid, the extremities were drawn up by violent and convulsive spasms, and it was discovered that on or about the 12th November, (eighteen days previously,) he had, in cutting a loaf of bread, inflicted a small, and, apparently, trifling wound of the integuments covering the metacarpal bone of the index finger of the left hand, near its articulation with the first bone of the finger; from which accident it appears that these alarming symptoms had originated. The wound was at this time nearly healed, and had throughout been considered by the patient of so little importance, as scarcely to have attracted his attention.

With a view of diminishing vascular action, and allaying irritability, six and thirty ounces of blood were immediately taken from the arm, he was

immersed in the warm bath, an aperient draught administered, and five grains of the pilula hydrargyri, with half a grain of opium, directed to be given every second hour, and two drachms of strong mercurial ointment to be well rubbed into the thighs and external fauces night and morning; a draught composed of tincture of opium and rectified æther, of each a drachm, in camphorated mixture, being taken at bed-time.

Towards evening, the aperient had procured several copious evacuations; his bath had produced profuse perspiration, the violence of the spasms were diminished, and the pain of the neck and deglutition were somewhat relieved.

December 1st. He had passed a tolerable night, the starting during sleep had not been frequent or troublesome, nor did he complain so much of his neck; the difficulty of opening his mouth continued much as before; his pulse was quick and full; thirst very considerable, but he swallowed with less difficulty: the spasmodic affection, when it occurred, was momentary, but affected the muscles of the whole body generally. The blood letting was repeated, and his medicines continued, with the addition of a draught of camphor mixture and æther, after each of the pills. About an hour after his being bled, and immersed in the warm bath, his pulse had become less frequent, and soft and compressible; and towards

evening, the spasmodic affection had decreased in violence. His pulse, however, notwithstanding the quantity of blood taken in the morning, had considerably increased in strength and fulness; in consequence of which sixteen ounces more were extracted.

December 2d. The spasms, although not less frequent, were moderated in violence, and the pain in the neck was only felt upon their recurrence; the pulse was about 90, soft and regular; the mouth was affected by the mercury; his bowels were confined, and he principally complained of stiffness of the jaw, and affection of the abdominal muscles. He was now ordered some castor oil, and the convulsive spasms appearing to have been relieved by the diaphoresis produced by the warm bath, he was directed to discontinue the *pilulæ hydrargyri cum opio*, and to substitute ten grains of the *pulvis ipecacuanæ compositus* every third hour; and the pulse being again increased in strength and frequency, twenty-eight ounces more of blood were extracted from the arm. His castor oil operated freely, and the ptyalism having considerably increased during this day, the mercurial frictions were discontinued.

December 3d. He had been much disturbed during the night by the castor oil; the spasms had occurred less frequently, but affected the muscles of the whole body, and more particularly those of

the jaw and abdomen. The Dover's powder having produced nausea, was now ordered every fourth, instead of every third hour, and the warm bath to be repeated.

December 4th. He experienced only two or three spasmodic attacks during the night, but was this morning seized with pain and spasm at the scrobiculus cordis, with affection of the diaphragm; the difficulty of opening his mouth still continued. Pulse about 90, soft and full, bowels regular. This is the first day that he complained of any particular affection at the pit of the stomach. He was ordered to repeat his bath and medicine.

Upon coming out of the bath this day, his pulse had increased to 120, and profuse perspiration took place, which continued throughout the day; towards evening, the pulse was about 95, rather increased in fulness. He had experienced no spasms during the day, and opened his mouth with greater facility.

December 6th. Experienced only one slight spasm or sudden starting during the night, and which he described as if affected by fright. About ten o'clock this morning he experienced another spasmodic attack affecting the whole of the muscles generally, but those of the jaw with much less violence than heretofore; in consequence of the bowels being confined, he was ordered an aperient

mixture, and the warm bath and Dover's powder to be repeated. The aperient produced several copious evacuations, and he fainted in the bath; the perspiration continued profuse, but he had had, during the day, several slight attacks of spasm.

December 7th. He had been very little disturbed during the night, the principal affection was now of the abdominal muscles, particularly of the recti, which continued hard and contracted; he opened his mouth with greater freedom, and had had no return of convulsive spasm, of either the neck or extremities; the pulse was full and rather hard, about 100, bowels regular, perspiration profuse.—To continue the Dover's powder and warm bath.

He experienced only one spasmodic attack throughout this day, and towards evening his pulse became more soft and regular.

From this period the symptoms gradually decreased in frequency and violence, under the use of the pulvis ipecacuanhæ compositus and warm bathing, with an occasional aperient; and on the 18th December, he discontinued the use of all internal remedies, and only had recourse to frictions of the abdomen with camphorated oil, and an occasional warm bath, due attention being paid to the state of the alimentary canal.

By the 24th December, he became quite con-

valescent, the rigidity of the abdominal muscles had subsided, and nothing but weakness then remained. He has since been discharged, and has joined his regiment.

In this case, had not active remedies been timely resorted to, the patient would in all probability have died ; and it would be a matter of some difficulty to decide, whether the copious depletion, the mercury, or the warm bathing and diaphoretics, were individually most effectual in promoting his recovery ; for I am inclined to believe, that neither of these means, singly persevered in, would have produced this favourable result.

Of the very numerous cases of tetanus which have fallen under my observation, I once met with one, that recovered under very peculiar circumstances. The particular notes of the case I unfortunately lost, with my baggage, in the Peninsula. The subject of it was a man of the Coldstream Foot Guards, who had received a musket wound in the left hand, between the metacarpal bones of the index and middle finger, which had nearly healed, when tetanus came on. Ptyalism was induced by mercury ; the warm bath frequently used, and opium given in large doses, without any visible advantage, and the patient was to all appearance dying. The wound was at this time unexpectedly affected by gangrene, considerable sloughing supervened, the locked jaw subsided,

and ultimately he recovered, with the loss of a considerable portion of the fleshy part of his hand.

How gangrene tended to promote recovery from tetanus, or what may have been its specific or peculiar action on the system, I cannot tell; but it would appear, that tetanus depends upon a peculiar state of the system, and of the part affected. What this peculiarity is, I do not pretend to know; consequently cannot tell how to correct it. I have, however, very generally found warm bathing and the use of diaphoretics alleviate the symptoms; whereas, on the contrary, the cold bath, as far as my experience goes, has only aggravated the spasmodic convulsions, and produced the most frightful contortions of the body.