

before admission she began to vomit, and to suffer severe pain in the back, and took to her bed. The bowels were not loose. On the day of admission the bowels were open twice; she had no inclination for food, and had still much pain in the back; the tongue was rather red and coated. She did not sleep during the night. On the following day the bowels were not open; the eyes were injected; the tongue dry and brown, and the teeth marked with sordes; pulse 120; temperature 102.8° F. She complained of abdominal pain. During the second night the bowels were open. She slept well, having taken half a drachm of chloral hydrate. On the following morning the teeth were covered with sordes; the tongue was dry, brown, and fissured; the temperature 104.2° F. On the third night the chloral was again followed by sleep. During the following day the bowels were not open; the general condition remained unaltered. An enema of olive oil was ordered. On the fourth day the tongue was dry, the pulse 96, the temperature 101.2° F., and the teeth still covered with sordes. The bowels were open. On the fifth day the pulse was 116, the temperature 103° F., and the bowels open once. On the sixth day the tip of the tongue was red, and free from fur; the pulse 116, and the temperature 104.6° F. The patient complained of sore-throat. On the seventh day after admission, and the tenth from the date of the vomiting, there were spots, in all respects corresponding to those of enteric fever, visible on the abdomen; the pulse 116, and the temperature 104.4° F. On the following day, the throat being still sore, the chest and abdomen were covered with a scarlatinal rash, which the next day had spread to the bend of the elbows and the thighs.

At the date of our last inquiry, the symptoms remained unaltered; and, judging from the furred and fissured tongue, the character of the motions, the date of the appearance of the rose spots, and the symptoms generally, Dr. Wadham and his house-physician, Dr. Dickinson, entertain no doubt that the patient was suffering from enteric fever at the time that the scarlatinal eruption made its appearance.

GUY'S HOSPITAL.

SEVERE TETANUS, FOLLOWING AN INJURY TO AN ULCER ON THE LEG, TREATED BY CHLORAL HYDRATE; RECOVERY.

(Under the care of Mr. BIRKETT.)

WE lately published notes of two cases of tetanus treated by chloral hydrate (*ante*, p. 293), in one of which recovery took place. We have now to add a record of three more, which have been subjected to similar treatment. It is, of course, far too early to draw any definite conclusion as regards the influence of chloral in promoting recovery from this terrible condition, but there would seem to be no doubt of the drug having greatly mitigated the patients' sufferings in the first two of the cases reported. It is only by the comparison of a large number of instances that we can hope to come to a conclusion respecting the merits of the drug, and it is as a contribution towards such a category that the following cases are published.

The first case, which exhibited all the features of severe tetanus, is remarkable, both on account of the exciting cause of the disease, and the relief following the use of the chloral hydrate. It should be observed that when opium was substituted the symptoms became worse, and that the benefit afforded by the chloral, strongly expressed by the sufferer himself, was very striking.

For the report of the case we are indebted to Mr. Branfoot.

R. S.—, aged twenty-six, a potman, was admitted into Lazarus Ward, on June 28th, 1870. He was well formed, and had enjoyed average good health. He had for some years been suffering from an ulcer of the leg, for which he had been under treatment several times, but which had never entirely healed. Ten days before admission he received a kick upon the ulcer. He took little account of the accident at the time, but seven days after he felt slight stiffness of the jaw, with pain and stiffness in the neck. These symptoms increased in severity, and he was admitted into the hospital three days after the first signs of trismus appeared.

On admission he had an anxious expression of counte-

nance; thick speech; the angles of the mouth slightly drawn down; stiffness of the jaw, and difficulty in deglutition; pulse 108, full. Ordered thirty grains of chloral hydrate every four hours.

June 29th.—Angles of mouth much more drawn; pain increased in chest, abdomen, and back; tetanic spasms have set in, and continue at slight intervals; sweats violently; tongue red and swollen; pulse 96; respiration 18.

30th.—Continues to get worse. Ordered in place of the chloral one grain of opium pill every three hours; wine and fluid nourishment, as much as he can get down. Ulcer very unhealthy-looking; poultices applied.

July 1st.—Is very ill; spasms very severe, coming on about every ten minutes, lasting two or three minutes, and causing him to cry out loudly with pain; pulse 88 between the spasms, during which it goes up to 160; respiration 18, abdominal; pupils slightly contracted.

2nd.—Spasms more severe, all the muscles of the trunk affected; slight opisthotonos; jaw fixed; gets fluids down pretty well between the teeth; bowels confined.

4th.—Has continued to get worse. Has now taken the opium regularly during four days. The chloral resumed, one drachm being given as a first dose, followed by fifteen grains every two hours.

5th.—Is a little improved; slept several hours, off and on, during the night; the spasms are still very severe; is unable to pass any urine naturally.

9th.—Has much improved; pulse 86; spasms less frequent, but still very severe; took a little solid food; urine passed naturally; bowels not open. Goes on regularly with the chloral, as he feels the want of it when not kept under its influence.

11th.—Spasms have increased in severity; pulse 104 between the spasms; during spasms goes up to 180 and becomes very small; respiration 28, abdominal. Chloral increased to twenty-five grains every two hours.

13th.—Pains not so great; is very sleepy, and seems very low; does not take nourishment so well; pulse 110, small and compressible; sweats and feels cold.

14th.—Chloral decreased again to fifteen grains every two hours; pulse 88, very soft; had four spasms during the night, which were less severe. Missed several doses of chloral, as he slept so much better.

16th.—Bowels have been opened by turpentine enema for the first time since admission, having previously resisted all attempts.

20th.—Took some solid food to-day. Pain and spasms become more severe when any attempt is made to diminish the doses of chloral.

25th.—Improving slowly. Spasms appear now to attack the diaphragm, coming on as sudden catches of the breath, with pain in the epigastric region. Takes plenty of nourishment.

28th.—Spasms have left him, but he has severe muscular pains occurring in the back and all over the body; spasms are brought on by movements or exposure to slight draught. The chloral is being gradually diminished.

Aug. 6th.—Still has slight jerking of breath at times; takes food well; greatly improved in health.

8th.—Chloral entirely left off. Ordered quinine.

11th.—Is gaining strength; gets up every day for two or three hours; ulcer looks healthy and is healing up.

GREAT NORTHERN HOSPITAL.

A CASE OF TRAUMATIC TETANUS TREATED BY CHLORAL HYDRATE; RECOVERY.

(Under the care of Mr. SPENCER WATSON.)

THE following case is communicated by Mr. Julian Willis, house-surgeon.

Mary Ann L.—, aged forty-one years, married, a stout, florid woman, was admitted on June 22nd, 1870. Three weeks ago, while scrubbing the floor of the hospital, she ran a splinter under the right thumb-nail, where it remained until the 22nd June. She herself removed it in two pieces, its total length being about an inch. An abscess had meanwhile formed, and had caused pain in the thumb and up the arm. On the 13th she first noticed pain in the right side of the jaw, and a continual yawning came on for which she could not account. On the 19th she had

some difficulty in opening her jaws, and found that she could not swallow solids, and since then has been scarcely able to eat anything solid. For the last two or three months she has had indifferent health, and her husband states that she is occasionally liable to fits of excitement of a hysterical character. She has seven children now living, and has miscarried perhaps a dozen times. She menstruates every fortnight.

On admission the jaws could only be separated to the extent of a quarter of an inch by an effort. An attempt to swallow a piece of bread-crumbs caused great pain and spasm of the jaws and a general sudden movement of the whole body. At this time there was no distinct opisthotonos; and the sudden movement of the body was rather of a writhing character.

In consultation with Mr. Carr Jackson, she was ordered to take thirty grains of crystallised chloral hydrate every four hours, and the liquid extract of opium was rubbed into the side of the neck and under the jaw. Her diet consisted of beef-tea, eggs beaten up in brandy, bread soaked in milk, and arrowroot. She was to take as much nourishment as possible, and four ounces of brandy in the twenty-four hours.

The chloral hydrate was given subsequently in forty-grain and one-drachm doses, and the object aimed at was to keep the patient in a state of semi-narcotism.

June 23rd.—Pulse 68. She slept several hours during the night, but roused herself several times by biting her tongue. Face flushed; copious perspiration. The thumb is slightly excoriated and tender. She complains of pain up the arm, in the axillary region, the lower part of the posterior triangle of the neck, and the submaxillary region. At all these points there is some tenderness on pressure. She also complains of tenderness in the lumbar and lower dorsal vertebrae.

From the last-mentioned date till July 5th, the chloral was given, with short intermissions, in forty-grain doses every four hours during the day, and drachm doses every six hours during the night.

The pulse increased in rapidity from 96 on the 27th to 120 on the 30th, after which it remained at about 104. The temperature was first noted on the 30th June. It was then 99.4° , and varied from $98\frac{1}{2}^{\circ}$ to $100\frac{1}{2}^{\circ}$. The bowels were very costive. Several enemata of castor oil, one containing a drop of croton oil, were given without effect. No satisfactory evacuation was obtained till July 3rd, after the administration of three pills in succession, each containing a drop of croton oil.

For twelve days she remained more or less under the influence of the chloral, often sleeping continuously for eight or ten hours, and even during the day remaining so profoundly unconscious that she was only roused with difficulty.

On July 8th the chloral was discontinued at the suggestion of Dr. Cholmeley, with the view of ascertaining how far the relaxation of the jaws already obtained would become permanent.

On the 9th, however, the patient became so violent both in her language and demeanour that it was necessary to put her into a strait-jacket. She seemed to be in a condition resembling alcoholic intoxication. Chloral was again given in forty-grain doses, with the effect of calming the excitement.

July 10th.—Pulse 96; temperature 101.6° . The chloral has been discontinued for about thirty hours. The temperature on this date was the highest noted during the progress of the case. The jaws had now again become clenched, and could only be opened to the extent of three-quarters of an inch. She bit her tongue severely on one occasion, and slight opisthotonos was noticed occasionally. The urine has been drawn off during the past ten days by the catheter, but now passes naturally.

15th.—Was again violent, but slept soundly after a drachm dose of chloral. Pulse 92; temperature 99.4° .

16th.—Pulse 82; temperature 98° .

18th.—Pulse 92; temperature 99° . The chloral was now entirely discontinued, the jaws remaining relaxed and the patient tranquil. From this date till July 25th the only medicine given was twenty grains of bromide of potassium each night at bedtime.

Recovery was now steadily progressive. On July 30th she was able to eat and drink without difficulty, but as she was suffering from debility and hysterical pains after

eating, she was placed under Dr. Cholmeley's care and soon became convalescent.

On August 17th she came to the hospital, and has since several times shown herself, not having experienced any return of the tetanic symptoms.

Remarks.—At first the pulse seemed to be lowered by the action of the chloral, but during the height of the disease, and while the chloral was given in full doses, the pulse was much increased in frequency. It became less frequent during a remission of the chloral, and again less frequent when full doses were given. The evidence, therefore, is so far contradictory, and the explanation is, that the disease was probably at its height during the period between June 29th and July 9th, and that it was less severe at the later periods. The temperature was lower when noted during the full action of the chloral, and rose when it was discontinued; again falling when the chloral was resumed. Thus the highest temperature noted during the time the full doses of chloral were being given was 100.4° F., and it fell as low as 99.4° F. after the drug had been given in full doses for thirteen days. The chloral having been entirely discontinued for two days, the temperature rose to $101\frac{1}{2}^{\circ}$ F. On being again given in full doses, the temperature fell to 98° F. The obstinate constipation was a remarkable feature in the case. The very large doses of croton oil required to overcome it, and the great improvement which followed, are also noteworthy.

THE DREADNOUGHT SEAMEN'S HOSPITAL.

A CASE OF IDIOPATHIC TETANUS.

FOR the particulars of this case we are indebted to Mr. Harry Leach.

Owen T—, aged thirty-seven, was admitted into the Seamen's Hospital on the 25th of August, with symptoms of tetanus in a marked form. There was excessive rigidity, the jaws were tightly closed, speech and respiration were difficult, the face suffused, consciousness complete; pulse 102.

The history of the case indicated little. The attack appeared to have commenced, about five days before admission, with general stiffness of the neck, from no apparent cause. This stiffness gradually extended to the jaws, without any other symptoms. There was no trace of a wound or injury of any kind.

A drachm of the chloral hydrate was given every three hours, from 5 P.M. on the 25th to 3 A.M. on the following day, so that half an ounce was taken. This, with small and oft-repeated quantities of milk and beef-tea, was swallowed with difficulty, though no relaxation of the jaws took place. About 7 A.M. on the day last quoted very decided and severe spasms, affecting the hands and feet, came on, and elicited loud cries. They recurred at frequent intervals; and, as the pupils were now contracted, the chloral was discontinued for a time, and the patient was brought partially under the influence of chloroform whenever there were indications of a return of the spasms. This resulted in a considerable relaxation of the muscles of the jaws, and a good quantity of fluid food was taken. During the afternoon of the same day the chloral was repeated, and chloroform was frequently given. The patient passed very little urine, had no stool, but took fluid food at intervals of about fifteen minutes, and had a very fair amount of quiet and genuine sleep. At 6.30 chloroform was again administered on account of an unusually severe spasm with screams. He took food well a few minutes subsequently, but died very suddenly twenty minutes after in a severe convulsive fit. No post-mortem examination was made.

The progress of this case was more hopeful than usual; and though, as is commonly the case, the result was unsatisfactory, experiences gleaned in this instance tend to indicate that the chloral hydrate is worthy of an extended trial, with inhalation of chloroform, whenever the tetanic spasms threaten. No stimulants were given.

FOOT-AND-MOUTH DISEASE.—We regret to state that this contagious malady has been prevailing extensively in various parts of Ireland, the county of Tipperary more especially. However, we hear that it is decreasing, and if the precautions to prevent its spreading be properly carried out, it may, ere long, be stamped out altogether.