HISTORY OF A CASE
OF
CHOREA SANCTI VITI,
OCCURRING IN AN ADULT,
AND
CURED IN AN UNUSUAL MANNER.
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COMMUNICATED BY
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I AM desirous of laying before the Society the following case of Chorea Sancti Viti, on account of the rare occurrence of this disease in adults and the scarcity of detailed cases in modern writings or collections*; and because it seems to establish more clearly than has hitherto been done, the dependence of the irregular motions which occur in it, upon a peculiar state of the mind. The authenticity of the case is beyond doubt, it having been seen by hundreds during its progress.

* See cases of periodical jactitation or chorea, by Dr. Watt, in the Fifth Volume of the Medico-Chirurgical Transactions, page 2.

Alice Whitworth, aged 22, married, and residing with her father Samuel Whittaker, a respectable householder at Sarah-moor, near this town, came to my house on the 21st of February, 1815, complaining of severe pains over the right side of the face generally, and darting from the cheek to the temple, gums, and teeth. She is the mother of two children, one of whom, aged 14 months, was at the breast: the menstrual discharge appeared regularly the preceding three months; her employment is such as to expose her to sudden alternations of heat, with cold and moisture. The pains were relieved by an opiate liniment, with liq. ammoniæ, and she went to her work on the two days following.

On February the 24th, at seven in the evening, she complained of a heavy sensation in the eyes, which she had noticed occasionally in the afternoon; and the mother, on examining them, observed that they had a peculiar wildness. An involuntary motion of the eye-lids then commenced, in which they were opened and shut with an excessive rapidity, for about fifteen minutes. This was instantly succeeded by involuntary motions of the right leg and arm, continuing nearly ten minutes. The affection now intermitted about ten minutes, when it commenced in both of the upper and lower extremities with increased violence, and had existed an hour upon my arrival. It continued two hours afterwards; when the pa-

tient became easier, and was put to bed. She had slight motions about twenty minutes, after which she passed a good night.

The motions which I observed upon this visit were the following: the palms of the hands were beat rapidly upon the thighs, and the feet upon the ground; the fore-arms were rubbed incessantly along the thighs; the radius rotating upon the ulna, at the same time that the hand was turned prone and supine during its progress. The arms being at times extended, and the palms of the hands suddenly turned outwards; the back of the wrists were repeatedly and violently struck against each other, while at other times, the middle fingers being extended inwards, struck the palm of the opposite hand, and so alternately with an almost inconceivable quickness. During these different actions of the superior extremities, the feet incessantly beat the ground, and occasionally the eyelids were opened and shut violently. A blister was applied to the neck; a dose of Epsom salts administered; and a saline mixture with ipecacuanha and tinct. opii ordered every three hours.

February 25. The motions commenced about six in the morning, in the arms and legs, and gradually became more violent till eight o'clock, when she arose. They recurred for two hours at a time through the day, with the interval of an hour; and were of the same description as on the 24th, but

more violent. The affection of the eyelids commonly ended in headach, of short duration, with sickness and vomiting. In the evening, the motions extended to the muscles of the trunk and pelvis, when, along with the actions before noticed, the patient was suddenly raised from the chair, but not erect, being instantly resealed ; and this took place as quickly as one action could possibly succeed another. The affection ceased at eleven o'clock, when the patient went to bed.

February 26. Slight motions of the limbs came on in bed. She arose at nine o'clock, after which they increased, and became unusually severe. She was hurled from side to side of the couch-chair upon which she sat, for a considerable time, without intermission ; was sometimes instantaneously and forcibly thrown upon her feet, when she jumped and stamped violently. She had headach ; the eyelids were frequently affected, and she had often a sudden propensity to spring or leap upwards. The affection ceased about eleven o'clock in the forenoon, the patient being very much fatigued ; but they returned about noon, and a third time in the afternoon, when she was impelled into every corner of the room, and began to strike the furniture and doors violently with the hand, as she passed near them, the sound of which afforded her great satisfaction. The fourth attack was at night ; was very violent, and ended with sickness and vomiting. She went to bed at half-past eleven. Her nights

were invariably good. The three last attacks were more violent than the former ones; but they continued only half an hour each.

The bowels having been briskly opened on the 25th, and no relief yet experienced, I commenced giving four grains of sulphat of zinc, night and morning, four drops of liq. arsenicalis and ten of tinct. opii every three hours.

February 27. The attack commenced in bed, and was violent, but of short duration. When she arose about ten, she had a second attack, continuing an hour, except an interval of five minutes. She now struck the furniture more violently and more repeatedly. Kneeling on one knee, with the hands upon the back, she often sprung up suddenly and struck the top of the room with the palm of the hand. To do this, she rose fifteen inches from the floor, so that the family were under the necessity of drawing all the nails and hooks from the ceiling. She frequently danced upon one leg, holding the other with the hand, and occasionally changing the legs. In the evening, the family observed the blows upon the furniture to be more continuous, and to assume the regular time and measure of a musical air. As a strain or series of strokes was concluded, she ended with a more violent stroke or a more violent spring or jump. Several of her friends also at this time noticed the regular measure of the strokes, and the greater regularity the

disease was assuming ; the motions being evidently affected, or in some measure modified by the strokes upon the surrounding bodies. She chiefly struck a small slender door ; the top of a chest of drawers ; the clock ; a table ; or a wooden skreen placed near the door. The affection ceased about nine o'clock, when the patient went to bed.

February 28. She arose very well at eight. At half past nine the motions recommenced ; they were now of a more pleasant nature ; the involuntary actions, instead of possessing their former irregularity and violence, being changed into a measured step over the room, connected with an air, or series of strokes, and she beat upon the adjacent bodies as she passed them. In the commencement of the attack, the lips moved as if words were articulated, but no sound could be distinguished at this period. It was curious indeed, to observe the patient at this time, moving around the room with all the vivacity of the country dance, or the graver step of the minuet ; the arms frequently carried, not merely with ease but with elegance. Occasionally, all the steps were so directed, as to place the foot constantly where the stone flags joined to form the floor, particularly when she looked downwards. When she looked upwards, there was an irresistible impulse to spring up to touch little spots or holes in the top of the ceiling ; when she looked around, she had a similar propensity to dart the forefinger into little holes in the furniture, &c. One hole in the

wooden skreen received the point of the forefinger many hundred times, which was suddenly and involuntarily darted into it with an amazing rapidity and precision. There was one particular part of the wall to which she frequently danced, and there placing herself with the back to it, stood two or three minutes. This by the family was called "*the measuring place.*" At noon she had an interval of three hours, when she took six grains of calomel with six of jalap.

In the afternoon the motions returned, and proceeded much as in the morning. At this time a person present, surprised with the manner in which she beat upon the doors, &c. and thinking he recognized the air, without further ceremony began to sing the tune ; the moment this struck her ears, she turned suddenly to the man, and dancing directly up to him, continued doing so till he was out of breath. The man now ceased a short time, when commencing again, he continued till the attack stopped. The night before this, her father had mentioned his wish to procure a drum, associating this dance of his daughter with some ideas of music. The avidity with which she danced to the tune when sung as above stated, confirmed this wish, and accordingly a drum and fife were procured in the evening. After two hours of rest, the motions again reappeared, when the drum and fife began to play the air, to which she had danced before, viz. the "Protestant Boys," a favourite po-

pular air in this neighbourhood. In whatever part of the room she happened to be, she immediately turned and danced up to the drum, and as close as possible to it, and there she danced till she missed the step, when the involuntary motions instantly ceased. The first time, she missed the step in five minutes; but again rose, and danced to the drum two minutes and a half by her father's watch, when, missing the step, the motions instantly ceased. She rose a third time, and missing the step in half a minute, the motions immediately ceased. After this, the drum and fife commenced as the involuntary actions were coming on, and before she rose from her seat; and four times they completely checked the progress of the attack, so that she did not rise upon the floor to dance. At this period, the affection ceased for the evening.

March 1. She arose very well at half-past seven. Upon my visit this morning, the circumstances of the preceding afternoon being stated, it appeared clear to me, that the attacks had been shortened. Slow as I had seen the effects of medicine in the comparatively trifling disease of young females, I was very willing that the family should pursue the experiment, whilst the medical means were continued.

As I wished to see the effect of the instrument over the disease, I was sent for at noon, when I found her dancing to the drum, which she continued to

do for half an hour without missing the step, owing to the slowness of the movement. As I sat counting the pulse, which I found to be 120; in the short interval of an attack, I noticed motions of the lips, previous to the commencement of the dance, and placing my ear near the mouth, I distinguished a tune. After the attack, of which this was the beginning, she informed me, in answer to my inquiry, that there always was a tune dwelling upon her mind, which at times becoming more pressing, irresistibly impelled her to commence the involuntary motions. The motions ceased at four o'clock.

At half past seven the motions commenced again, when I was sent for. There were two drummers present, and an unbraced drum was beaten till the other was braced. She danced regularly to the unbraced drum, but the moment the other commenced she instantly ceased. As missing the time stopped the affections, I wished the measure to be changed during the dance, which stopped the attack. It also ceased upon increasing the rapidity of the beat, till she could no longer keep time; and it was truly surprising to see the rapidity and violence of the muscular exertion, in order to keep time with the increasing movement of the instrument. Five times I saw her sit down the same evening, at the instant that she was unable to keep the measure; and in consequence of this I desired the drummers to beat one continued roll, instead

of a regular movement. She arose and danced five minutes, when both drums beat a continued roll; the motions instantly stopped, and the patient sat down. In a few minutes the motions commencing again, she was suffered to dance five minutes, when the drums again began to roll, the effect of which was instantaneous; the motions ceased, and the patient sat down. In a few minutes the same was repeated with the same effect. It appeared certain that the attacks could now be stopped in an instant, and I was desirous of arresting them entirely, and breaking the chain of irregular associations which constituted the disease. As the motions at this period always commenced in the fingers, and propagated themselves along the upper extremities to the trunk; I desired the drummers, when the patient arose to dance, to watch the commencement of the attack, and roll the drums before she arose from the chair. Six times successively, the patient was hindered from rising, by attending to the commencement of the affection; and before leaving the house, I desired the family to attend to the commencement of the attacks, and use the drum early.

March 2. She arose at seven o'clock, and the motions commenced at ten; she danced twice before the drummer was prepared, after which she attempted to dance again four several times; but one roll of a well-braced drum hindered the patient from leaving her seat; after which the attacks

did not recur. She was left weakly and fatigued by the disease, but with a good appetite. In the evening of this day, an eruption appeared, particularly about the elbows, in diffused patches of a bright red colour, which went off on the third day. On March 4th she had the menses in her usual way; and on the 8th, was free from complaint. The bowels regular, urinary secretion natural, the appetite good, and strength improving.

During the existence of this disease, and for two days after its cessation, there was a frequent sensation, particularly when in bed, of insects creeping in circles over the skin, especially upon the thighs.

The alvine discharge during the complaint, and especially after the use of opening medicines, was occasionally offensive, unnatural in colour, and slimy; but at other times it was perfectly natural.

The pulse I never found under 108, but frequently 130 after the cessation of the attack, when she was always fatigued, and had a tendency to doze and sleep. Twice since, she has had slight affections in the eyelids, which have gone away without further trouble. The child was early taken away from the breast, suspecting this affection might have some connection with the secretion of milk; and in advising this, I had also a

view to the use of cold affusion, but the sudden cure rendered this unnecessary. The milk receded favourably.

This woman, previously to her complaint, could never dance, even a country dance ; and yet I saw her execute steps which could not be taught without difficulty. At times she would rise upon the toes, and move forward, alternately advancing each heel into the hollow of the opposite foot ; at other times, poising the body upon one foot, with the heel raised, she would beat time with the toe and heel of the other.

In this case there was no wandering of the intellect, either during the paroxysm, or in its absence. The perception and judgment were accurate and just, and all questions were answered correctly. During the intermission, she did many household affairs, nursed her child, &c. &c. although the troublesome curiosity of her numberless visitors undoubtedly disturbed her ease. There was a constant wish to recover ; a just knowledge of her situation, and of the advantage she received from the agency of the instrument, with an anxious desire to continue its use.

How far the mind was in a state of excitement in the commencement of this disease it is difficult to decide, since the connection betwixt the involuntary ideas and the involuntary motions was only

observed on the 27th of February. After the dancing commenced, I noticed the patient always to be in good spirits, evidently to enjoy the drum, and to turn to it instantly, upon the very first stroke, in whatever situation the involuntary motions had then carried her.

This disease appears to have consisted in an highly irritable state of the mind, with which the organs of voluntary motion became associated; and the cure was effected by interrupting this irregular association. It is probable that the noise of the instrument in a room scarcely six yards square, was very advantageous, by interrupting the chain of musical ideas, impressed upon the highly excited mind, and re-establishing the ordinary relation of the mental operations with external things. The voluntary muscles also early associated themselves with the instrument, as was shewn by the instant cessation of their unnatural actions, when the time could no longer be kept.

The involuntary actions became more frequent, as their duration was shortened by the means put in force; so that it would seem as if the disease struggled to renew actions which had not been permitted to arrive at an ordinary period.

Some circumstances having prevented my forwarding to the Society the above case, the delay has given me an opportunity of accompanying the report by some further statements. As no attacks of the affection had occurred for nearly five weeks, I had considered the disease as cured. On the 10th of April, however, the patient again applied to me, and stated that on the 4th of April, slight motions appeared in the face; on the 6th she was prevailed upon to receive several electric shocks; on the 7th she was worse; on the 8th she was easier; but on the 10th she was much worse; the motions affecting the eyes and eyelids, and muscles of the face. Since the former attack, the bowels have been constantly kept open by the use of laxative remedies; but the menses have not appeared at the usual period. I found no particular excitement of the mind; the pulse was 90 and weak; she complained of weakness and lassitude, and as she returned home from my house the affection attacked the right arm. A powder of the hydrargyri submurias, with pulv. rhei, opened the bowels thrice in the afternoon, and the discharge was dark-coloured, slimy, and offensive. Fifteen grains of bark were also ordered three times a day.

April 11th. She shewed me an eruption near the elbow, which had appeared about the time the motions recommenced. This day the motions affected the eyes, eyelids, and face generally, and the muscles of the right fore-arm and fingers were

also singularly affected. The stomach was flatulent, with frequent eructations ; she was low-spirited, languid, and heavy : the pulse was 108 and feeble ; she has had three more passages, dark, offensive, and slimy ; and the affection was evidently increasing. The purgative was repeated, and fifteen grains of bark, with two grains of rhubarb, given three times a day ; and at night four grains of the pil. hydrargyri.

12th. Before rising she had considerable motions in the eyelids, and in the arm and fore-arm ; but very little in the course of the day. Had two loose and offensive stools ; the urine is high-coloured ; the eruption receding. The medicines were repeated.

13th. Has had several dark, offensive, and slimy evacuations ; no irregular motions, and the appetite improving. The medicines were continued.

14th. Has had no irregular motions of the muscles ; is very sleepy ; complains of pains shooting along the right side of the face, teeth, and gums, similar to those which preceded the affection ; the eruption keeps out slightly about the elbow. Has had several more natural evacuations. The medicines were continued.

15th. Has had no irregular motions of the mus-

cles ; appetite good ; not dull or sleepy ; the pains continue, and she has had several relaxed, but more natural evacuations.

April 16. Has had some slight affection of the eyelids, brought on by a fright ; pulse 120 ; tongue light yellow, moist and soft ; appetite improving ; eructations diminishing. Has had two loose evacuations of a natural appearance. The bark, &c. was continued ; an opening powder ordered every second morning, and the pil. hydrarg. every second night.

17th. The evacuations were light coloured, not offensive nor slimy ; no irregular motions.

18th. Bowels relaxed ; no irregular motions ; continue the bark without the pulv. rhei.

19th. Feels languid ; eructates frequently ; has had three relaxed evacuations of a natural appearance, and has had some affections in the eyelids. The bark was continued three times a day, with opii gr. ss. castor gr. iij. and camphor gr. ij. The mercurial pill was omitted.

20th. Had a very good day.

21st. Two evacuations, relaxed, but natural in other respects ; affections of the eyelids

troublesome in the afternoon ; appetite and strength improving. The powders were continued.

22nd. No evacuation from the bowels ; tongue moist, with a light yellow fur ; pulse 90 ; slight motions in the eyelids. The powders were continued, and a purgative ordered every second morning, of hydr. submur., pulv. rhei, and pulv. jalapii, each gr. iv.

From this period till May 27, the patient continued very well, except having occasionally slight twitchings in the eyelids. On that day the affection six times attacked the legs and arms, precisely as in the first attack ; and it was preceded by violent retching, and motions at the scorbiculus cordis, which I consider to have been similar affections, situated on the muscular coat of the stomach.

On the 28th she had six similar attacks, when the family again resorted to the use of the drum, by which she was four times instantaneously relieved. The attacks had ceased before I saw the patient, which was in the evening. I found the bowels slow ; the pulse 100 and weak, and the patient stated that she thought herself in the third month of pregnancy.

May 29th. The irregular motions were confined to the eyes and eyelids, and attended with a sense of fulness and anxiety in the chest.

30th. This day when the affection was in the eyes and eyelids, the patient beat the drum herself, with instant relief of the symptoms ; and upon their recurrence, she again resorted to the drum, but without relief. The drum was then taken by a young man working in the house, who instantly stopped the motions by beating violently. This day the drum stopped the motions of the eyes and eyelids four times.

31st. The motions of the eyes and eyelids were stopt thrice ; twice by the patient beating the drum, and once by her brother.

She continued well from this day to the 5th of June, when the affections attacked the muscles of the abdomen, and muscular coat of the stomach, producing considerable movements in the abdominal parietes, and an exhausting retching. The attack ending in a bilious vomiting. On the 7th the attack was extended to the muscles of the back of the neck. The head was drawn back so powerfully that the extension of the larynx made the patient breathe with extreme difficulty, and with a loud and croupy noise. The eyes, mouth, and face were also much distorted, and when laid down upon her side, she was frequently, gently, but involuntarily, turned upon her back ; on the 11th she danced six times, frequently turning swiftly round for five minutes together, and the movement going off with a vomiting of bile. On the 12th

she also danced frequently, but the dance had nothing of the regularity which characterized it in the commencement, but consisted of irregular involuntary motions often ending with vomiting.

On the 8th a blister was applied to the head, which she thought eased her during its operation; and on the 13th she took a vomit, with relief for the day, which was repeated on the 15th without any benefit. On the 13th, 14th, and 15th, the motions diminished, and were succeeded by excruciating pain in the face, and on the 16th three leeches were applied to the face with relief. On the 17th I took eight ounces of blood from the arm, which eased the pain. On the 18th she felt feeble and weak, had motions only in the eyelids and left arm slightly; the bowels were open, and stools dark coloured. On the 19th the affections attacked the muscles of the arms, of the abdomen, and of the throat, attended with great difficulty of breathing; the bowels being open. On the 20th she passed a very good day. 21st. Had some affections in the muscles of the chest, producing difficult breathing, and also in the eyes and eyelids, for which I took eight ounces more of blood, with great relief. I was chiefly induced to bleed from the arm, upon considering the pregnant situation of the patient, and as she found relief, I was inclined to extend the use of the lancet. The patient continued very well till the 9th of July, when some involuntary motions again appearing, and increasing to the

11th, eight ounces of blood were taken from the arm, with perfect relief. She continued very well till the 2nd of August, and on the occurrence of some slight involuntary motions again appearing, I bled her from the arm largely, since which time she has been perfectly free from complaint. After the affections attacked the neck, on the 7th of June, the drum had never any effect in shortening the duration of the attacks. The patient is now in very good spirits and health.