NOTES OF AN UNUSUAL CASE OF EPILEPSY.*

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I AM induced to lay before the Section some notes of this case, now under my care, both because it presents, so far as my experience goes, some singular and anomalous features, and also in the hope that the experience of other members may be able to throw some light upon it, or to cite similar cases. Epilepsy and the affections allied to it have been so long and so carefully studied, that it is with great diffidence I venture to bring forward a case as presenting unusual or novel symptoms; but there is a combination of symptoms in the case which I have not myself met with before, and have not found recorded.

I am sorry to say that I have failed, as yet, to trace out the *earlier* history of the case as carefully as is desirable, the patient having come from a distance, and having been under my care only about six weeks.

E. W., female, aged 22, was admitted into the asylum on June 14th of this year, under an order of transfer from the General Lunatic Asylum at Northampton, where she had been under treatment for nearly four months. The certificate on which she was received into the Northampton Asylum stated that she had had "maniacal paroxysms succeeding epileptic fits, talking violently, throwing herself out of bed, threatening to destroy herself as well as others; that she had been subject to epilepsy for six years, that she was incoherent in language, that she tried to strangle herself and to jump out of the window; sometimes talking and hallooing all the night." It seems that she had been in the Wellborough Workhouse Infirmary for some months prior to this; and I obtained the following information from the medical officer, Dr. W. Clarke. "Before she was sent to this Workhouse Infirmary, she was subject to fits and aggravated hysteria while at service. She became worse, difficult to manage, and, at times, violent; and was sent to the Union Infirmary, where she became periodically noisy, violent, and dangerous. I considered that she might have disease of the brain; and, as she became dangerous to herself and others, and there being no accommodation for such patients here, I was obliged to send her to the Northampton Asylum. She has been frequently as you describe."

From Mr. Bayley, Superintendent of the Northampton Asylum, I ascertained that E. W. "was subject, while there, to violent attacks of epileptic mania. She had a contracted foot when she was admitted, and was never able to walk without help. She got much stronger and better during the time she was with us."

The following was her state upon admission. She was little, stout; of fresh healthy colour, and apparently in good health. Height, 5 ft. 3 inches; weight, 10 stones. Her tongue was large, and rather white; the bowels were inclined to be constipated. The left foot was contracted and distorted exactly like a bad case of talipes varus; she walked with difficulty, and on the outside of the foot. There was, also, a certain amount of contraction at the knee-joint, with some wasting of the muscles of the calf. Two fingers of the left hand were stiff and useless. The circulatory system was normal; pulse regular, about 80. The respiratory system was normal. She was very quiet, spoke readily and rationally, and presented little evidence of mental weakness.

She was reported by the nurses who brought her to have many and severe fits; and to be at times violent, excited, and destructive, requiring to be placed in the padded room; also to have shown suicidal tendencies. Her history, as given by herself, was as follows; and I believe it may, to a great extent, be relied upon. When well, she conversed very readily; her memory seems pretty good, and she writes sensible, coherent letters.

She stated that, as a child, till she was about eight years old, she was subject to St. Vitus's dance, which was worst down the left side. This left her, and she subsequently began to take fits, but not to any extent till she was grown up; and even then she was once for twelve months without any. She had been in service at different times, and was so shortly before last Christmas; then the fits came on badly, and she went to an aunt. Then she had a very bad attack; and, when she came to herself, she was in the union, and she found that her left foot was twisted as it was on her admission; it had never been straight since. It was very painful to walk upon it; and she would give anything, or suffer anything, if it could only be straightened again. Before this, her foot was quite right. She thought herself that a bone was out, and that she had got it hurt in some way while she was ill. Eighteen months ago, she said, her left hand swelled and gathered. She was in

hospital with it for some time. It was twice cut, and then a splint was put on for a time. The hand had not been strong since; she had not much use in two fingers. Before that, there was nothing the matter with her hand. She said that she suffered much from her head; she often had a full feeling in it; so bad, at times, that she would like to have it cut open. This was before she had fits. Just before a fit came on, she felt as if there were something which boiled up towards her head; then it boiled over, and she remembered nothing more.

On the day of her admission, E. W. had several fits, which were reported as being "odd sort of fits". The following day, she was very well during the day; but, about 7 P.M., she began to have fits, and continued to have them, one after the other, in rapid succession. About 9 o'clock, I was sent for to see her. I found her lying on a mattress on the floor, with two nurses beside her, to prevent her from hurting herself from the violence of the fits. She was lying quiet, almost completely unconscious; her hands up at her head, pulse small and quick, skin cool and dry. In a little while, she gave a groan or two, and moved about restlessly; the nurses said, "She is going off again", and immediately seized her arms. I asked why they did it; they said, if they did not hold her arms, her hands would be bitten severely. In a few seconds, strong tonic spasms began in the limbs, the arms being strongly flexed. At the same time, a peculiar rhythmical lateral movement of the head began, becoming rapidly more violent, so that the head was thrown violently from side to side. The head described a complete semicircle or more each time; and the movements were of the most regular character, the oscillations being at the rate of about a hundred a minute. So powerful was the muscular action, that, applying all my strength with both hands, I could not hold the head. The face was much flushed, the eyes partially open, and the eyeballs turned forcibly upwards and inwards. The movements of the head were accompanied by a short rapid expiration, producing a peculiar barking cry; each double oscillation being synchronous with one of these. The convulsive movements of the head and the rigid spasms of the limbs continued increasing for about three minutes, when the lateral movement of the head ceased, the latter becoming fixed and thrown back; and the tetanic spasms became more general and severe, accompanied by several prolonged respiratory efforts. The face became congested and livid; the spasms increased in intensity; closure of the glottis took place, the face and neck becoming turgid and swollen; the whole body became rigid, and was arched in a state of complete opisthotonos; respiration was arrested, and suffocation seemed imminent, when, with a final effort, as it were, relaxation suddenly took place, the whole body became helpless and quiescent, the respiration blowing and stertorous, with frothing at the mouth; and, in fact, the typical appearances were presented of the final stage of an epileptic fit. In a short time, the stertor diminished, and a condition of semiconsciousness ensued; the hands went up to the head again, and, with a groan, were pressed against it. In the course of a few minutes, the premonitory signs of another attack showed themselves. I motioned to the nurses not to hold the arms. In a few seconds, the fit began; and, in an instant, both arms were violently flexed, the hands thrown towards the face, and the fingers of the right hand seized between the teeth, and severely bitten. It was with some difficulty they were released, and the arm brought down. Precisely the same succession of phenomena now ensued as before, and ended in the same way. I remained and watched several attacks throughout; but there was no material variation in the symptoms. A noticeable point was that, even at the height of the convulsions, the skin remained cool and dry. Consciousness during, and for some minutes after, each fit was completely suspended, the pupils being insensible to light. At no period, even of the intervals, could she be roused, or got to swallow anything. She was ordered a stimulating injection, containing castor-oil and turpentine.

On visiting her again about twelve o'clock, I found that she was still having the fits; but the intervals were longer, and there was more consciousness during them. She was able to swallow a little milk; and once or twice said, "Oh, my head", as she put her hand to it. I noticed now that the right foot was becoming inverted similar to the left; and, in the next paroxysm, could watch it being forcibly contracted under the influence of the spasms. The injection had acted freely, and brought away a considerable quantity of fæces. The fits continued till 4 A.M., but diminishing in number and severity. They then ceased, and the patient fell into a heavy sleep, having had at least forty fits during the night.

Next day, she was better, but weak, and her mind was confused; she had several fits during the day. She passed next night pretty well, without fits. Next day, she was up, and much better, though weak. She was quiet and sensible, and very much distressed about her feet. She was now quite helpless, the right foot being distorted nearly as much as the left, and resisting any ordinary effort to straighten it, the

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attempt causing, also, intense pain. The following night she had no fits, but complained much of pain in her legs and feet, which prevented her from sleeping. Next day, June 18th, she was worse, and had nine fits. The tendency to bite the fingers was very marked, so much so that leather gloves were put on to prevent injury from this cause. During the following night, she had a succession of fits, lasting till 5 A.M., when she became a little better; but during the succeeding forty-eight hours she was more or less constantly having fits. Maniacal symptoms now began to show themselves; she became restless, noisy, and excited. On the 28th, the following note was made.

"All last week, she was in a maniacal state, but did not have many fits till two nights ago, when she had a series till 11 o'clock, and the same last night. They are generally worse at night. Several nights last week, she was very noisy, singing, shouting, etc., and, at times, destructive. Two doses of chloral were necessary more than once before she got any sleep. During these last two nights, the left hand has become inverted and distorted in a similar manner to the feet. To have a blister on nape of neck 4×4 in.; and bromide of potassium, one drachm, three times a day. In the intervals of a series of fits, she always puts her hands to her head; and, when sensible at all, says, 'Oh, my head'; and at times asks to be killed."

The storm of fits seemed now to have exhausted itself for this time; and, in the course of another week, the maniacal symptoms had also gradually subsided, and she was again mentally in the state noted on admission. The distortion of the hand passed off spontaneously in a few days, but that of the foot remaining persistent; and, the crippled condition of the poor girl being very pitiable, the question presented itself to me if an effort could not be made to overcome it. Accordingly, I determined, though with no very sanguine expectations, to try the effects of chloroform. On July 9th, therefore, Dr. Lyle administered it, while I took charge of the foot. It was with some difficulty that she was brought fully under its influence; but, when this was at last effected, I was gratified to find that, by the use of very gentle force, the contracted state of the foot was overcome, and it was easily restored to its normal position. An ordinary straight splint was then applied on the outside of the leg and foot. No bad effect followed, except that the following night she complained of a good deal of pain. In a week, the splint was removed, and the foot found to be quite straight. Although the ankle was swollen and stiff for some days, she was soon able to walk upon it, and to get about as she did before.

On the 17th, I find the following note.

"She has a heavy, dull expression to-day. She complains of her head. She says she has a full feeling in it; would like it cut open. The forehead is hot, and face flushed. A few minutes afterwards, she had a fit; she fell off her chair like a log, without any cry. The fit had the same characters as noted before, only not so violent, and it was over in two or three minutes. There were the same violent and rhythmical movement of the head, the same 'barking' respiration, and the same tonic spasms of arms and legs, ending with general ones of the body, and opisthotonos; then blowing respiration, frothing at the mouth, and relaxation."

On the 21st, it was determined to make an effort to overcome the deformity of the left foot; though it was felt that, owing to the length of time that had elapsed, and her having walked so much on it, the result was very doubtful. Greater difficulty than before was experienced in producing the full effects of the chloroform; and, after succeeding in effecting a partial straightening of the foot, a splint was applied, and further efforts desisted from for the time. I may mention that, shortly after the inhalation began, a fit came on; but it appeared to be, to a great extent, aborted by the chloroform; the characteristic phenomena were greatly modified, and the fit cut short. Five days afterwards, a second and more successful attempt was made. The foot was got, without using undue force, into an almost perfectly straight position, and was kept so by means of a pad and a Dupuytren's splint on the outside. The final result as to this leg cannot yet be given, although it must, in any case, be much more doubtful than the other one; but there can be little doubt that, had the same means been employed equally early, the result would have been equally satisfactory, and a most distressing deformity averted.

The patient, during this month, has had no further bad attack, the fits having only been slight and occasional. It is, of course, very doubtful how long this remission will continue. She has continued the bromide, and careful attention is paid to the state of her bowels. I may say here that she has menstruated twice since her admission.

One or two questions now present themselves as to the precise nature of this case. In the first place, am I right in calling it one of epilepsy? Although the symptoms are, in many respects, peculiar and anomalous, I think it has so many of the features generally allowed as distinctive

of an epileptic seizure, that it must be placed in the same category. These points are:

1. The undoubted evidence there was in the whole seizure of a "nervous discharge".
2. The existence of a premonitory sensation or "aura".
3. Complete unconsciousness during the fits.
4. The fits occurring, at times, in a rapidly following series, inducing a comatose or semi-comatose state.
5. The closure of the glottis, with venous congestion, frothing at the mouth, and stertorous breathing.
6. A series of fits being followed by the characteristic transient epileptic mania.

The peculiarities in the seizures, as compared with an ordinary epileptic one, I have sufficiently indicated in the account of the case, and I will only here summarise them as follows:

1. The rhythmical oscillations of the head.
2. The predominance of tonic spasm.
3. The permanent deformities remaining after the convulsions have passed off.

Another question, however, suggests itself, which is: How far an element of hysteria may enter into the case, or have modified the symptoms. There can be little doubt that this girl was constitutionally predisposed to neuroses of a convulsive nature; and that, as she approached maturity, she suffered from "aggravated hysteria". It is hardly necessary, I think, to argue seriously the point that hysteria, even in its most Protean forms, could never account for the series of phenomena described.

The symptoms which I have indicated as pointing strongly to epilepsy are alone sufficient to negative the idea of the convulsions being hysterical; but, further, there was an absence of all the more usual phenomena of hysteria: such as globus, alternations of laughter and tears, rapid sobbing, respiration, etc. But I think, nevertheless, that it is quite possible that the strong hysterical temperament may have had some effect in modifying and moulding, as it were, the particular form which the epileptic seizures should take, and may serve to account for some of their peculiarities. It is, perhaps, even a question whether, under certain circumstances, hysteria might not develop into true epilepsy, by the constant repetition of impressions on nervous centres predisposed to irritability and instability, in a way somewhat analogous to the development of a predominant idea into an actual insane delusion. To make my meaning more clear, we know that the essence of hysteria lies in the will ceasing to control phenomena which it itself originated; and it is only a step further for these or similar phenomena to arise automatically without the intervention of the will at all—the nervous centre involved having acquired, through habit, the requisite irritability.

I will only notice one more question which arises; and that is: how far some of the symptoms point to the existence of anything like serious organic mischief, such as a tumour. It will be recollected that the patient complains much of pain in her head at times, especially in the intervals of a series of fits; presses her hands on it; cries out, "Oh, my head"; and even asks wildly to have it cut open, or to be killed. Then the marked predominance of tonic spasm and the prolonged contraction of groups of muscles, as well as the forcible turning up of the eyes, rather point to some organic source of irritation in the brain or its membranes. On the other hand, there is no symptom of paralysis, and there is no progressive or steady aggravation of the symptoms going on.

The case is incomplete at present; and it may be expected that, in its further development, some light will be thrown on points which are now doubtful. In the meantime, I present it as it is, as a case of some interest, of which some of the features admit of discussion, and are open to different interpretations.

Since writing the above, I have ascertained some additional particulars as to the patient's history through Dr. Clarke. It appears that she suffered from convulsions during infancy, but seemed quite to recover; and there was no paralysis. When grown up, she became subject to hysteria and slight fits, which prevented her from continuing in service. About two years ago, it seems that the catamenia ceased for a time. Her statement as to the cause of the contraction and stiffness in the left hand is confirmed, and, generally, the account she gave of herself. The important fact is added, that there was no contraction or deformity formerly.

A very important item in the history is that, about eighteen months ago, she had a severe fall upon the back of her head; and her sister says she has been worse since; and it seems that she had no bad fits till after this.

Dr. Clarke adds that he "considered it a very unusual and peculiar case, and thought there might be a tumour or some mischief going on in the membranes".