

to the irritation of recurrent attacks of peripheral neuritis, but, after all, as second attacks appear to be rare, the mere fact of their existence is no real argument against the infectivity of herpes, as they occur occasionally in all the infectious diseases. But, from another point of view, herpes does not behave as if it depended on a living virus. The frequency with which it has been reported to appear during a course of treatment with arsenic is very difficult to explain on any theory of infection. Le Feuvre seems inclined to brush this difficulty aside and seriously to consider the possibility of an infectious disease arising *de novo* under suitable conditions, a line of argument in which I am not prepared to follow him. Otherwise it must be assumed that arsenic renders the individual especially susceptible to infection, and that the possibilities of such infection are much more frequent than can easily be imagined.

Discussion.

Looking at the subject as a whole it seems not unfair to conclude that the small number of cases in the second group—that is to say, chicken-pox followed by herpes—may readily be explained by coincidence. Further instances of this sequence certainly should be reported before we can lay much stress on it. Secondly, the cases in the third group, that of the two conditions co-existing, may be accounted for either by chicken-pox starting for some unknown reason with a herpetic distribution, or by the phenomenon known as “generalised herpes.” Some, it is true, may question the possibility of herpes becoming generalised, though, if we grant that herpes depends upon a virus, there is no particular reason why that virus should not occasionally be diffused through the nervous system much as that of anterior poliomyelitis appears to be in certain instances. On the other hand, the two conditions may coexist in this group of cases quite fortuitously, though the regularity with which, in the cases reported, the general eruption has followed the local one within a week, suggests that there is a definite connexion between the two. The fourth group, again, simultaneous attacks of herpes and chicken-pox in different individuals, might well, from the small number of cases recorded up to date, depend upon coincidence. So far, then, as these three groups are concerned, the case in favour of an identical virus does not appear to be a strong one, though they assume an undoubted significance as long as the occurrences in the first group remain unexplained.

It is, in fact, the first group for which it is difficult to supply an adequate explanation. A large number of instances have been reported in which chicken-pox has followed herpes in another individual, and always within the limits of the incubation period of the former disease. If chicken-pox appeared as commonly two months after herpes as it does within three or four weeks, I cannot doubt that that fact would have been put on record, and it is this occurrence of an apparent incubation period which compels most attention and which cannot be put lightly aside. We probably all have a prejudice in favour of keeping what we consider different diseases in watertight compartments, as it were, but, after all, we know singularly little about them, and it is quite possible that the same virus may behave quite differently under different conditions. As it is, the fundamental identity of diseases as different in their symptomatology as influenza, anterior poliomyelitis, encephalitis lethargica, and cerebro-spinal fever has been seriously suggested and discussed, and although I am far from accepting such a view, particularly as regards cerebro-spinal fever, it is obvious that the same poison acting on different structures might be expected to cause different symptoms.

The key to the mystery lies, I am convinced, in the hands of the general practitioner. All cases in which any association of the two diseases is noticed should be carefully noted and put on record. What I think is equally important is to keep a note of all cases of herpes which, occurring in a family where there are susceptible children, are *not* followed by chicken-pox. For instance, in the last four years seven cases of herpes

zoster have occurred in the Edinburgh City Hospital in wards in which there were one or more children who had not previously suffered from chicken-pox. Three of these cases have been followed by outbreaks of chicken-pox otherwise unexplained. It must again be repeated that the possibility of a missed case of chicken-pox being the real cause can never be entirely excluded, especially when one remembers that the whole eruption of that disease may be represented by one spot and in consequence very easily overlooked. A series of similar observations, however, would give us some idea what percentage of cases of herpes are followed by chicken-pox, and should such a percentage be found to be considerable the relationship between the two conditions might be more reasonably accepted. The proportions, moreover, of herpes patients who have or have not previously suffered from chicken-pox would be an interesting addition to our knowledge. Attention might also be given to the question of second attacks of herpes and to the dates on which herpes occurred in the practices of the observer and his neighbours with a view to investigating epidemicity. All that is required is a certain number of practitioners—say one hundred—willing to note such facts for a period of three or four years. Still more light would be thrown on the subject if a few medical officers of health would persuade their local authorities to follow the example of Bulawayo, which, no doubt at the instance of Dr. Le Feuvre, has made both “shingles” and “chicken-pox” notifiable diseases. But until a considerable mass of information can be obtained we must, I fear, leave the question an open one, recognising at the same time that such information is necessary before we can, with any justice, absolutely repudiate the theory of identity.

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THE ANALYSIS OF A FUGUE.

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THE following case may be of sufficient interest to warrant publication, inasmuch as the events which led to the final dissociation reveal themselves in well-ordered sequence.

X.Y.Z., aged 43, single, joiner, a native of East Anglia, who had lived in Manchester for some eight years, was admitted to this hospital on June 9th, 1920, with a history of having unaccountably left his home in Manchester on the previous Whit Sunday morning, May 23rd. His friends heard nothing of him till Thursday, May 27th, when the police reported that he was in a certain workhouse infirmary some miles from his home. He had been picked up in an exhausted condition the previous (Wednesday) midnight unable to give an account of himself and was taken to the infirmary. There he could not give his name, address, or occupation, and his mind was an absolute blank for all events in his past life prior to the previous Tuesday morning (May 25th), when he woke up to find himself in a strange park, except that he spontaneously recalled air raids in France. Other events of his army life were as completely forgotten as his civilian career.

A tram ticket from Liverpool to St. Helens which was found on him aroused no associations, and he was eventually identified as the result of a telegram sent from St. Helens on Whit Monday to his fiancée, telling her not to worry, that his head was bad, and that he would soon be home. This enabled the police to trace him.

Apart from the memory of air raids, the only link with his past which was revived in the infirmary was due to the policeman who took him there. This officer, himself from the Eastern Counties, recognised the patient’s accent, and this aroused some nebulous associations in the latter’s

mind, but not sufficient to enable him to say where his old home had been. On Saturday, May 29th, his fiancée, accompanied by a friend well known to him, arrived at the infirmary to take him back to Manchester. He did not recognise either of them, and Manchester, including the house and friends with whom he had lived for years, was entirely new to him. He astonished his landlord by asking where he could wash, receiving a reply more curt than courteous. Similarly a friend from his old home, who arrived a few days later in response to a telegram, was unrecognised, though a photo of the latter's young daughter aroused some unsystematised associations. The same photo portrayed the patient's nephew, whom he had seen as recently as last year, but he did not recognise the boy at all.

Condition on Admission to Hospital.

Z. continued in this condition until his admission here on June 9th. He was taken to a medical board on June 3rd, passing streets formerly familiar but now entirely strange to him: at the board the note was made, "Remembers bombing at Etaples and very little else." He accepted the statements of his friends as to former occurrences, his engagement, &c. (his fiancée obviously resembling a photo which he had in his possession), so that he was able to give an incomplete account of much of his past life. This knowledge, however, was not a recall of past impressions, but was, to him, new matter which he had learnt since his return to Manchester on May 29th.

The events narrated lacked the tang of reality for him, and he was still quite ignorant of the occurrences which had transpired unknown to his friends; for example, the happenings of Whit Sunday and Monday. His fiancée told him that on the Saturday preceding Whit Sunday he had been to B—l with her in the afternoon; he could not recall this, even after being told about it. Similarly, his joiner's shop was examined by his friends, and a bag of valuable tools, which he was accustomed to take out with him when working, was missing; he did not know of the existence of his shop and still less where the tools were. Again his friends told him that on the Whit Sunday morning he was going to fetch a new suit of clothes from his tailor's private residence. He had no idea of the tailor's name or address, or that he was getting a new suit at all. (It subsequently transpired that it was a newly opened shop where Z. had never dealt before, and his friends did not know of it.) A more serious matter was that he had securities deposited somewhere representing a large sum of money; he had no recollection of owning the securities or of where they were. His fiancée knew of them, but he had never told her where they were deposited.

As opposed to the amnesia for his past life, including the first two days of the fugue, his memory for events since he woke up in the park on Whit Tuesday morning, May 25th, was perfect, but it was a new existence sharply and absolutely demarcated from the former one. To recapitulate, therefore, apart from memories of bombing, he had amnesia for practically everything up to the morning of May 25th, except what he had re-learned about himself during his stay in Manchester between his return on May 29th and his admission here on June 9th, while he remembered everything that had transpired since May 25th, but could not link up these later events with anything that had happened previously.

It was at once evident that this was a perfectly genuine case and not the aftermath of a Whitsun spree. Z. was a most respectable and well-conducted man, a lifelong abstainer, whose previous career could be vouched for by responsible witnesses. It may also be stated that subsequent hypnosis confirmed that he had drunk nothing stronger than minerals during his wanderings. The past history was incomplete at this stage and will be considered later, but an arresting fact came to light at the first interview. On Whit Sunday, 1918, a fine and hot day, he had been through a severe air raid at Etaples, subsequently being taken for safety to a wood near a railway some kilos away, and on an equally fine and hot Whit Sunday two years later he had wandered from his home, "waking up" two days later by a railway bridge in a wooded park in Lancashire.

Hypnosis of Patient.

Owing to unavoidable circumstances it was not possible to give Z. much attention for a few days, and as, curiously enough, the sergeant who had drilled him as a recruit in 1917 happened to occupy the next bed—though Z. did not at first recognise him—the two men were sent about together to endeavour to recover the lost memories. This succeeded to a limited extent,

but the revived memories were confined to the period of their training together at Scarborough, and were probably, to some extent at least, "suggested" by the sergeant. As soon as opportunity offered, therefore (June 21st), I decided to hypnotise the patient. The commencement of the amnesia was vague and affected occurrences of years ago, so the first hypnosis was primarily devoted to recalling the events of the Whit Sunday and Monday. Z. readily passed into deep hypnosis, and most of the dissociated memories of the fugue were recovered. In places the story was sketchy, and the suggestion was given¹ that he would afterwards dream of the events he had spoken of during hypnosis, that any gaps would be filled up, and that after the dream he would remember them all as having actually occurred in real life, and would write them out on waking. This he did, and next day brought the following account of his journeyings:—

The Patient's Story.

"I remember on Whit Sunday morning having a nasty headache and a feeling I must get right away. It was a very hot day. I remember getting on a car and going to Stockport; from there to H— G—, calling at a small shop for some sandwiches and biscuits. The people were just coming out of church. I then walked through some fields by this church to some woods near B—l, where I remained nearly all the day. I remember the sun being very hot, and my head still aching, with a desire to still wander on. I remember at the time I bought the biscuits, &c., I changed a ten-shilling note, and left in a wallet eight pounds. While in the wood I also remember coming out and going to a small house on the road and having some tea and bread-and-butter, which would be, I think, about 7 or 8. I then had a feeling I ought to be going home, but could not remember where I wanted to go, so kept on walking and wandering about till midnight, when I had a sleep in a barn, somewhere, I think, near A—m; it was a beautiful moonlight night when I awoke. I still went walking on across country till I came to a place called M— G—, and then into S—n, where I met some colliers going to work, which I think would be about 5 o'clock. I remember telling them I wanted to get to some big town, but I could not remember the name. They told me how to get to Liverpool by car, as I told them it was a long way I wanted to get to. I got on a car to Ath—n, where we had to change again. I remember getting off the car and seeing some children dressed in white. It came to my mind all of a sudden then; I had promised to go with my young lady to watch the procession at Manchester. I was then close to a small house where they sold mineral waters, teas, &c. There were two cycle motorists came up at the time. I can remember tearing a piece of paper out of the wallet I had and asked them if they would take a telegram to the nearest post-office for me as I was not feeling well. I remember giving them this and a shilling; they said they were going to St. Helens. I then went in a field close to and ate some sandwiches I had left and went to sleep, as I felt so tired. When I awoke my head was much worse; I did not remember anything about sending the telegram. I was still anxious to get to Liverpool. I got on a car to A—n, and from there to St. Helens, went into a refreshment-room and had a good breakfast, then got on a car to Knotty Ash, where we had to change again for Liverpool. Before resuming the journey I went in a small wood close to and lay down for a while, and then went on a car again which had on the front "Pier Head," which took me right into Liverpool. I then remember going to a station, and having a good wash, as I was very dirty and dusty. I wandered about Liverpool for some time, but could not recognise any place I wanted, so thought I would go back the same way I came. I got on the car back to St. Helens; it was getting very late. I tried to get some sleeping apartment for the night, but it was so late I could not get in anywhere, so I thought I would still go farther on nearing A—n. I saw a kind of park (Haydock) with a railway bridge which looked a nice place for a shelter. I remember going to sleep, but before doing so I remember seeing two or three men in the park.

I can remember nothing else till I woke up [on Whit Tuesday, May 25th] and thought I would get some breakfast and go back to S—n. I had about 9d. in my pocket, knew I should want more, put my hand in my pocket for my wallet to get out another note, but could not find it. I looked where I had slept but could see nothing of it. I then stayed in the park for some time till I saw a party of ladies and children; they came up to me and asked what was the matter. I remember telling them I was not well; they asked me to have some milk, which I had, also something to

¹ I am indebted for this useful hint to Dr. Hadfield's article in *Functional Nerve Disease*.

eat. Towards night, knowing I had no money, I started to walk again; it looked so much like rain, and being tired I saw a chapel on the road. At the back there was a little washhouse. I went and sat in there for a time and had a sleep, then started walking towards Ath—n.

Before coming to Ath—n I went in a park close to and sat there for some time thinking and wondering where I should go. I found some food that had been left by someone and ate it, then went on to the library at Ath—n and stayed there for some time, then wandered about feeling very bad till I was found in Market-street about 12 o'clock [midnight, 26th-27th] and taken to the police station. They gave me some milk and questioned me, but could remember nothing. They then took me the next morning to — Union. I remained there till my young lady and gentleman friend of mine came to fetch me [on May 29th], but could not recognise them, and went back with them by train to Manchester, but could remember nothing about the town, still having pains in my head."

The above statement accounts for the whole fugue, though, as before narrated, the events which transpired after he woke up in the park on the Tuesday morning to find his money gone had never left his memory. Z.'s story answers the question which naturally puzzled one at first, "If he on Monday sent the telegram to his fiancée, remembering her address, why had he not been able to return?" He definitely says that after sending it he went to sleep in the field and did not remember anything about the telegram when he awoke. Again, why did he on the Tuesday and Wednesday go back through the same towns he had passed through on Monday, since he had quite forgotten where he had been on the Monday? He told me that he "felt an impulse" to take that route, though he did not remember having traversed it previously. Thirdly, why did he "wake up" on the Tuesday morning so that subsequent events were remembered? His own theory, when questioned about it after his memory had returned, was that it was due to the shock of finding his money gone. It is more probable that on the corresponding morning in France in 1918 the danger of that particular series of air raids terminated, and this was subsequently confirmed by his recollection of that time and also by independent evidence. There seems little doubt that the men seen in the park late on Monday night took his money. He remembered noticing that they were a rough lot, but in his state of absolute exhaustion he went to sleep and remembered nothing till morning. It is possible that he fainted from exhaustion, for he had walked at least 25 miles on very little food since the Sunday morning, not including his wanderings all day about Liverpool. The comparatively large sum of money which he had with him represented the amount owing for the suit of clothes which he had arranged to fetch and pay for on the Sunday morning. It will be noticed that his objective was always among trees, and he finally came to a halt on the Monday night in a park near a railway bridge. He said that the combination of trees and railway gave him a sense of security. [Cf. his experience in France two years previously.]

By similar methods the memory of his past life was recovered and assimilated to consciousness, so that a complete history could be constructed. The missing tools were traced to a corporation parcels office where he had deposited them some weeks before Whitsun, and were recovered. Of the securities more anon.

History of Patient.

Z.'s family and personal history was good; no epilepsy or automatisms. Many years ago he had a bicycle accident, which rendered him unconscious but left no legacy of headaches or defective memory, and he was "as good a man as ever after it." Called up early in 1917, at the age of 40, he went to Etaples in August of that year and worked as a carpenter in an artisan company on hospital construction and similar work. All went well until he came in for an air raid at Easter, 1918, but the hostile planes did not come very near on that occasion. [At this point in the hypnotic recital patient shook and evinced other signs of emotion.] At Whitsuntide, 1918, there were very severe raids and the company's dining-hall was blown up, though, fortunately, it was empty at the time. In the early hours of Whit Sunday morning there was a very big raid, and patient was hit on the foot by a piece of shrapnel. He remembers going out of camp soon after to a small wood to find a safe place to sleep in, as he felt he dared not stay another night in

camp. He was brought back and told that no one could leave the camp "on their own," but that a party would be organised every night, for those who wished it, to walk out to a wood some kilos away. Here were two railway lines, and he was told that a railway bridge was a safe place or, better still, against an embankment. A few days later proper dug-outs were constructed, and there was no need to retire to the wood. Z. experienced several other raids, which were chiefly during the week-ends. (The dates were verified from a calendar which he was able to obtain from a friend who had been with him at Etaples; this proved his memory of the events of that period to be very accurate.) The significance of these dates in connexion with subsequent events will be presently apparent.

Z. was always very apprehensive of raids and used to go to a dug-out or cave even when others did not consider it necessary to do so, thus gaining the soubriquet of "The Dug-Out King." One night he was leaving the hut and had to be stopped from doing so by the other men, whom he had awakened. He was aware of the occurrence and was not somnambulating, but felt compelled to go. Even till Christmas, 1918, weeks after the armistice, he felt this nervousness and restlessness at night.

Condition After Demobilisation.

Finally, in March, 1919, he was demobilised. He paid a visit to his brother in East Anglia, returning to Manchester just before Easter, 1919, after which he started business as a joiner. He resided with his former friends and rented a shop for his work.

During the ensuing year he was far from well. Although anxious to work, he felt unable to do so efficiently. His friends noticed that he was always worse at week-ends, when he frequently had to put off excursions which he had arranged with his fiancée. He was depressed and anxious and suffered constantly with "terrible" (sic) headaches. His memory was very defective. He also had a sense of impending disaster and a feeling that he must get "right away," though he did not know from what, and he had an ill-defined apprehension, which he knew was unfounded, that he would have to return to France. He felt he was not doing his work satisfactorily and was worried because he did not think he would be justified in marrying. He used to sit brooding in his shop and would often go out into the country for a day, thinking it would do him good and also because on these occasions he had a claustrophobia for his shop. This conduct appeared unreasonable to him, as he was ignorant of the reason impelling him to make these excursions; consequently he was ashamed to speak of them to his friends. This in turn led to his fiancée thinking he was not quite straightforward with her, which added to his unhappiness. He was only too conscious that his friends were watching him, to them, inexplicable conduct, and he became thoroughly miserable. He told me that during this period he feared for his reason, and, though suicide was not actually contemplated, he often wished he had been killed in France and was out of it all.

In addition to his general malaise there were several occasions when he was definitely incapacitated and went to his doctor. The most noticeable attacks were at Easter, Whitsun, July, August, and October, 1919, Easter and the three weeks preceding Whitsun, 1920. During the last period he was unable to work and consequently did not need the cloak-roomed tools. He felt too poorly to fetch them.

The relationship between these illnesses and events in France are shown in the following table, in which the dates of raids are verified by his friend's calendar and his illnesses from his own and his friend's statements:—

| | 1918. | 1919. | 1920. |
|----------|--|----------------------------------|-------------------------|
| Easter: | Air raid. | Unwell, went to his doctor. | In bed on the Saturday. |
| Whitsun: | Air raid. | Not fit. | Fugue. |
| July: | Raids 1st, 3rd, 13th, 24th, 31st. | Felt ill and went to his doctor. | |
| August: | Raids 1st, 10th, 13th. | Ill at Bank holiday. | |
| October: | Raid on return from leave at Boulogne. | Went to his doctor. | |

On one or two occasions he suddenly collapsed face downwards, and on being picked up after one such attack asked "if he were in France." The events of Easter, 1919, may be briefly referred to because of their connexion with the missing securities. It was very difficult to recover the memories of these; he thought he had hidden them somewhere, but the only places at his legitimate disposal were his one-roomed shop and the house where he lived, so the choice seemed limited. Hypnosis, however, revealed that he had a vague recollection of taking them into the country and leaving them somewhere, but it was only after repeated hypnotism that the story could be pieced together. On Easter Monday, 1919, after an early visit to his doctor, as he felt ill, he felt impelled to take the papers with him into the country and took train for this purpose. At the end of the train journey he felt he must get still further away, so he took a vacant

seat in a charabanc which was bound for an historical part of Derbyshire. He left the charabanc and after walking some way through a wood, deposited the box in an ivy covered niche, subsequently returning to Manchester by train. A few days previously his brother had advised him to be very careful of the papers; it is therefore not surprising that when he went into the country feeling, perhaps subconsciously, that his own safety required it, he should have taken the securities with him. After hiding the papers he intended to fetch them, but forgot where they were; he felt that they were safe, however, and was accordingly easy in his mind.

Repression of War Memories.

Z.'s attitude towards his war memories was one of determined repression. All unpleasant memories were deliberately kept out of mind during the day and he gave the anticipated account of constantly repeated dreams of bombs and raids, together with a certain wood. This wood constantly recurred in his dreams, and was evidently the one near Etaples. Corroboration of the nightmares was obtained from the son of the house, with whom Z. shared a bedroom. Z. also made the interesting statement that at the times when he felt most ill he, in accordance with his friends' advice, made particular efforts to "forget" all about France, with the result that he noticed that his sleep was even more than usually broken by dreams and his headaches were much intensified. He used to wake with a start when dozing off, in a cold sweat and with his heart beating tumultuously. All this is quite in accord with the observations frequently made of the effects of repression, but the spontaneity with which he volunteered the information was striking. The battle dreams were particularly in evidence during the three weeks preceding the fugue and whilst he was in the infirmary.

Prior to the fugue he does not appear to have had amnesia for his army experiences, though his friends told him that his accounts did not always tally. It never once occurred to him that his wish to get away into the country, where he always sought a wood, was in any way connected with his conduct in France, where, it will be recalled, he was marched out at night to the woods of (?) La Foil and then felt safe.

Progress of Case.

After the first hypnosis on June 21st progress was rapid. Up to this, four weeks after the fugue, his memory had shown but little signs of returning, and it would be interesting to speculate as to what the outcome would have been had he had no friends to discover him and bring him for treatment.

Hypnosis was employed solely to recover the lost memory; to have used it to suggest that he would have no more fugues, without explaining to him how his illness had come about, would have been quite unjustifiable. The journeys into the country were his only means of escape, however inadequate, from his intolerable situation, and to block this safety-valve without showing him a better way out of his troubles might have had disastrous results, possibly even suicide. It was gratifying to hear him spontaneously relate how the weight of impending and unknown disaster which had been with him for so long was now quite lifted from his mind, and that he was sleeping well with no disturbing dreams. He volunteered the statement that an aeroplane which was one day near the hospital did not frighten him at all. He commented on this to his companions, because on previous occasions since leaving the army the sight of an aeroplane had always made him tremulous and nervous, even though his reason told him his fears were unfounded.

Stages in the Case.

The stages which culminated in the fugue were, therefore, first, the air raids, which affected Z. more than his colleagues. It will be remembered that he made for a wood on his own responsibility before the order was given for the men to sleep out, and he associated a wood, especially near a railway bridge, with safety. Then there was the episode of his feeling impelled to leave the sleeping quarters when he was stopped by his friends. Though not an unconscious act, it marks a stage towards automatism, as did his various excursions from Manchester. The Easter Monday occurrence was important in this connexion, since he afterwards entirely forgot where he had put the papers, though he remembered and spoke of the day's excursion, and, in fact, planned to make it again with his

fiancée. The connexion between his malaise at week-ends and the air raids is obvious, while "the fits" of falling suddenly on his face were repetitions of similar acts in France. The baleful influence of repression was throughout responsible for maintaining and intensifying his condition. At first he could remember all the events of his army life, later his friends told him the accounts did not tally, and finally the memories became completely dissociated. Possibly even half an hour of psychotherapy 15 months ago would have spared him most, if not all, the misery of the past year.

Clinical Notes :

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF THE MYOCLONIC FORM OF ACUTE EPIDEMIC ENCEPHALITIS, WITH RECOVERY.

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IN THE LANCET of July 17th three fatal cases of the myoclonic form of acute epidemic encephalitis were reported by Dr. Arthur W. M. Ellis. The following case may prove of interest on account of the mildness of the attack and recovery of the patient.

A. T., female, aged 25, dressmaker, was seen in the out-patient department of Maida Vale Hospital for Nervous Diseases on June 10th, 1920, with a complaint of general nervousness and depression, insomnia, difficulty in walking, and twitching in her muscles. About May 17th she had pain in the back of her right forearm; this continued until May 23rd, on which date she went for a bicycle ride into the country. The same evening she felt a "drawing pain" on the right side of her chest, not aggravated by respiration. On the 24th the chest pain was associated with tenderness. The pain continued until the 27th, when she then felt it right round her body just above the waist; this only remained for about 24 hours. From May 24th onwards she had felt depressed and tired and had not slept at all; she thought she was delirious at nights—the latter two statements her mother confirmed. Her bowels were not open between May 24th and June 3rd. About May 30th she first felt sudden muscular spasms in both legs, chiefly in the thigh and calf muscles; each spasm only lasted a second or so. A few days later she noticed them in her abdomen. With the onset of these spasms the pain in her right side became much better. On June 4th, whilst walking, her knees frequently gave way; this has continued since that date; she thinks it is due to the spasms. Her mother stated that she had been slightly drowsy during the daytime, but patient denied having felt drowsy. No history of vomiting, headache, diplopia, or difficulty in voiding urine.

Examination in out-patient department.—Patient looks pale with an anxious expression. She talks quickly and excitedly, but there is no speech defect. Eyes are bright and staring. She answers questions intelligently. As she stands her knees give way suddenly from time to time owing to sudden momentary contraction of the hamstrings, usually bilateral. On examining the abdomen in the recumbent position sudden shock-like contractions are seen involving the lower segments, chiefly the left, causing the umbilicus to be pulled downwards. The tone of the abdominal muscles is slightly increased. Reflexes are present in lower segments, but absent in upper. A fine irregular tremor is present in both legs on voluntary movement. The same shock-like contractions are present in certain muscle groups in the legs—especially frequent are those in the peroneal group of the right leg and in the posterior group of the left leg. The contractions are much shorter in duration though just as powerful as those in the abdomen.

Earlier in the same week, owing to the kindness of Dr. George Riddoch, I had an opportunity of seeing one of the three cases reported by Dr. Ellis, and the similarity between the movements in that case and the one I was examining was so striking that I felt sure that this was a case of a similar nature. She was admitted into Maida Vale Hospital on June 12th, under the care of Dr. Anthony Feiling.

Condition on admission and subsequent course.—June 13th; M.T. 98° 0' F., P. 88, R. 20. Patient states that she is very depressed and has considerable difficulty in moving in bed. Seems less excitable than on June 10th; no drowsiness; no disorientation. Constipation marked, bowels not acting since June 10th. Insomnia still present. Pupils moderately dilated; slight inequality, left being larger than right. Unsustained lateral nystagmoid movements. No strabismus or diplopia. Pupils react to light and accommodation. No facial asymmetry or other cranial nerve palsies. Fine tremor in outstretched hands; no ataxia. No sensory disturbance.