ON SOME CONSTITUTIONAL ASPECTS OF CHOREA AND ON ITS SEQUELÆ*

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IF one sees many cases of chorea and investigates them in detail, one cannot help thinking that constitution plays a part of some importance in its ætiology. In textbooks one finds remarks to the effect that the patients had already exhibited neurotic traits before the onset of the disease. Furthermore, among relatives cases of chorea and other mental and nervous diseases and abnormal personalities are observed with some frequency, as far as a general impression goes. Kehrer has proposed to name the abnormal types in choreic families 'choreopathic personalities.' In doing so he took as his starting point Huntington families, but he expressly extended his idea to families with Sydenham's chorea. The definition of the choreopathic personality is not exact as yet, on either physical or psychical side, nor do we know whether the postchoreic personality which will be discussed later on is identical with the choreopathic personality or even similar to it.

It may be mentioned that the schizoid personality has been conceived along similar lines, viz. as a premorbid personality, as postschizophrenic defect and as a constitutional anomaly in schizophrenic families. There is moreover some constitutional relationship between chorea and schizophrenia. Looking through the families of some choreic patients I found some frequency of catatonic psychoses among their relatives. B. Schulz has confirmed these observations in material which was relatively small but elaborated on strict genetic lines. He found that the proportion of schizophrenics in the families of choreic patients is nearly twice as high as in the average population. Krauss also found in the families of 24 cases of chorea eight certain and three doubtful cases of schizophrenia. This author was the first to investigate systematically the postchoreic personality, earlier writers having been interested only in the neurological sequelæ of this disease, and that to a limited degree. Looking through the textbooks of neurology with regard to the prognosis of chorea one generally finds it stated that only a small proportion of the patients die, and that death in these cases is due to endocarditis or heart failure, the prognosis of severe cases generally depending on the

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efficiency of the heart. As to the prognosis of mild cases little is to be found. One has to conclude that they recover; Russel Brain, however, says in his textbook: 'Chorea as such leaves no serious sequels, though some mental instability may persist for a long time, and slight involuntary movements may be perpetuated as a habit.'

In the last few years several after-histories have been published which give evidence that in some cases permanent disturbances of motility are left behind.

The present writer published in 1927 18 cases, nine of which showed motor anomalies for as long as 18 years after leaving hospital. Straus following up 23 cases saw choreiform, myoclonic or tic-like movements in 10 of them. Krauss observed hyperkineses in 17 cases out of 23 many years after the acute illness. Ossipowa noted in 60 per cent. of her cases residual motor symptoms, two or three years after their discharge. Straus was able to show that in a fair percentage of tiqueurs one finds chorea in the history; the more one directs one's attention to this, the more one is obliged to confirm his observation. As mentioned above, Krauss was the first to investigate systematically the psychic state after chorea. He regards the psychic picture as being similar to that of the schizoid psychopath. He finds the patients 'irritable and sensitive, seclusive, taking everything very seriously, querulous and suspicious . . . they are not very impressionable and little capable of emotional adaptation to their surroundings.' Besides the residual motor symptoms (tics, tremor, fidgetiness) he finds neurasthenic features (headaches, vertigo) and psychasthenic ones (forgetfulness, anxiety, lack of endurance, slowness of psychic acts). 'The postchoreics are not very vital or agile; they are rather quiet and listless persons.'

FREQUENCY

Chorea appears to be rather frequent in this country. Thus among the 2,026 in-patients of the Maudsley Hospital discharged between the years 1932-34 13 cases of acute chorea were found, while among the 22,000 admissions to Kraepelin's Psychiatric Clinic in Munich which had very similar material only 18 cases of chorea were noted from 1907 to 1922. Among the admissions to the Children's Hospital in Basle between 1910 and 1930 Krauss found only 50 cases, and in Eppendorf, the best-known German neurological hospital, from 1924 to 1933 only 41 cases of chorea were admitted among 16,000 patients. In England, on the other hand, Langmead (*L.C.C. Report*, 1910) in 2,556 children found 0.7 per cent. with evidence of chorea. Hadfield (*L.C.C. Report*, 1911) in 2,249 boys found 0.3 per cent., in 3,050 girls nearly 1.0 per cent. The *Annual Report of the L.C.C.*, 1934, mentions 1,094 cases of chorea.

RELATION TO PSYCHOSES

The frequency of chorea is also striking in histories and family histories of in- and out-patients at the Maudsley Hospital. This offered a new access

to the problems mentioned above, viz. the rôle of constitution in the ætiology of chorea and its sequels. Instead of following up patients who had suffered from chorea previously I looked through the in-patient records for three years to collect cases where chorea had occurred in the history or in the family tree.* Probably the incidence of chorea in the family of the average patient would not have been noted as regularly as in cases of those who had chorea themselves. Excluding the latter, there were four persons in whose families chorea was mentioned. In two their mother, and in two others a sister had suffered from St. Vitus' dance. Of the four patients in question three were admitted because of schizophrenia, and one because of depression. The numbers are too small to draw conclusions, but they gain some importance if one compares them with the investigation of the individual histories. In 24 of the records during the period mentioned chorea was found in the history. The following table shows the diagnosis of the cases :

Diagnosis.	Number.	Number of Discharges.
Schizophrenia	7	300
Depression	5	540
Hysteria	4	120
Anxiety State	4	140
Moral Abnormality	3	
Neurasthenia	1	
	—	
	24	

The figures are the more impressive if one compares them with those in the second column. This refers to the number of cases which had been admitted for the first time under this diagnosis. Without basing exact statistical conclusions on these numbers one can say roughly that *in the history of schizophrenics chorea is nearly twice as frequently noted as in depressives*, and that the figures are still higher in hysteria and anxiety states, the two most important neuroses.

But psychiatric diagnoses are only labels which do not characterize the individual case perfectly. Therefore the cases ought to be reviewed singly. In this way one cannot expect results of statistical value, but perhaps one will learn whether and how chorea modifies the clinical picture. A perusal of the records and after-histories, with regard to diagnosis, allows of doubt in only one of the schizophrenics (Case 2).

In this case the state of the circulation suggests a symptomatic psychosis of the paranoid schizophrenic type accompanying heart failure. There is no possibility of finding the cause of the latter. Perhaps it had been the final effect of a choreic endocarditis, for as early as 1916 the patient had been rejected from the army because

* Only first admissions were used for technical reasons, and all cases of organic deterioration (general paralysis, arteriosclerosis) were excluded, as the data for childhood are generally not so complete, and the reliability of memory would be doubtful.

of his heart. On the other hand the result of the Wassermann reaction points to a syphilitic disturbance.

The sequence chorea—vitium cordis—symptomatic psychosis of paranoic schizophrenic type is illustrated by a case like St. B.*

Two depressions among the five cases mentioned above had subsequently to be eliminated. In the one case (Case 3) the psychosis started during a septic puerperium. The symptoms were depression and agitation, but also paranoid ideas and clouding of consciousness. The patient died in the psychosis. Also in the second case (no. 23) immediately after childbirth a symptomatic psychosis with disturbances of consciousness, incoherence, resistiveness, restlessness and paranoid ideas started. There was a mitral stenosis with dilatation of the heart as causal factor. This patient recovered. A third case (no. 22) with a similar history is still in a mental hospital and apparently shows a schizophrenic defect. Thus only two depressive cases have been left in which the patients previously suffered from chorea; one of these (Case 21) is described in the record as having hysterical features. She exhibited a depersonalization state, without the characteristic traits of an endogenous melancholia. The fifth case (no. 4) is also rather an atypical depression. Furthermore the history of chorea in this case is not very definite.

A review of the anxiety states indicates that in one case the state is due to or can reasonably be considered as a psychogenic reaction. In two others the physical state is of considerable importance. One started during pregnancy, the other coincided with the chorea, but the last case (no. 17) may have been an endogenous depression.† Without overrating the exact proportions it seems possible to conclude that, as far as the endogenous psychoses are concerned, chorea is far more frequent in the history of schizophrenics than of manic-depressives (approximately 8 : 2).

In the literature on this subject there is only one remark about chorea in the history of schizophrenic patients. Schilder mentions a patient who 'had chorea in her childhood, and it is known that not only patients with catatonic troubles but also their relatives are comparatively often affected with chorea or choreiform troubles.' If one is not inclined to think of the coincidence as being due to pure chance one must consider the relationship of the constitutional factors underlying both diseases. It may be, on the one hand, that the disturbances produced by chorea play a part in the

* Endocarditis may be the link between chorea and other neurological symptoms, e.g. a case of Jacksonian epilepsy after an embolism apparently originating from choreic endocarditis has been observed. Later on the patient developed also generalized attacks.

† Recently I have observed in addition to the series of cases upon which this paper is based, several schizophrenics with chorea in the history, and one patient with mild reactive depression and no schizoid features, who had had chorea in her childhood. She had a tic as a motor after-effect. A sister of this patient suffered from a schizophrenic psychosis.

pathogenesis of the psychosis—which seems unlikely considering the statistical relations—on the other hand that they have a pathoplastic effect on the subsequent psychosis. I have mentioned above Krauss's investigations in which the choreic personality is not exactly distinguished from the post-choreic personality. The descriptions of the previous personality found in the histories are remarkably similar to what Krauss describes. But the evidence they supply is not decisive, as the periods before and after chorea have not been discriminated in this material, nor were data collected for this particular purpose. We find descriptions like the following (the first figure in the brackets gives the age at the time of the chorea, the second one the age at the onset of the disease which brought the patient into this hospital).

- Case 1 (7, 22) 'delicate, reserved, suspicious.'
- „ 2 (11, 39) 'seclusive, suspicious, unsociable, day-dreaming.'
- „ 6 (childhood, 22) 'reserved, quiet, solitary.'
- „ 9 (9, 24) 'particular, reserved, sensitive.'
- „ 10 (6, 32) 'sensitive, nervous, seclusive.'
- „ 22 (school, 36) 'reserved, shy, sensitive.'

As one sees, the chorea commences early, so that one can hardly find out whether a change of personality occurred or not. There was in only one case a definite statement to the effect that the patient had always been a difficult child, sulky and obstinate; in two other cases in which chorea occurred relatively late one can infer from the history that the description of the previous personality refers to the prechoreic period (Cases 7, 21). In the last case it is not quite clear from the description whether a previous attack of chorea had occurred while the patient was at school. In only one case (no. 24) is there evidence that a change of personality became noticeable after the chorea. In the record we find this: 'before 13 normal, gets on fairly well with people, but quarrels with other children. Between 13 and 16 energetic and sociable, fond of parties, lots of friends. First attack of chorea at 14, recurrence at 16½. Since then has gradually become more difficult and quarrelsome. Criticizes people and is afraid people may criticize her.'

A collection of notes about the previous personality of cases admitted to hospital with chorea during the same period shows some similarly abnormal characters:

- 'Impulsive, obstinate, demanding, easily hurt, good opinion of herself.'
- 'Peculiar, difficult to manage, violent temper.'
- 'Obstinate, quick temper, sulky and disobedient.'
- 'Excitable, sensitive, conscientious.'
- 'Excitable, put off her balance, could not stand jokes and teasing.'
- 'Shy, quiet, passive.'

The results of Rorschach tests performed on the latest admissions of chorea point also in the same direction.

These abnormal traits in the prechoreic personality would point still more to a constitutional disposition than to an effect of the disease on

the personality. But we must bear in mind that the last-mentioned material must be used with special caution, as the cases have been admitted to the Maudsley Hospital as a rule not because of the chorea but for psychic complications.

The possibility of a postchoreic personality-change cannot, it is true, be excluded by the collection of this scanty material found in the records. There is still a possibility that minute changes have not been mentioned or have not been related to chorea. This possibility is to be stressed, since one sequela of chorea, viz. the motor instability, emerges even from these records which have been written without particular regard to this point.

DISORDERS OF MOTILITY

In eight cases motor symptoms like those we have seen as sequels of chorea have been described as existing before the psychosis. The relatives describe them as 'tics,' 'nervous,' 'twitching,' they call the patients fidgety, jumpy. In other cases during the psychosis 'jerky movements' or similar symptoms are noted without its being possible to demonstrate whether they had existed before or were only developed during the disease. In either case the interpretation offered above would still stand. In a previous paper the present writer has shown that the motor instability left behind by chorea may be elicited by various noxæ, that agents of varying kinds, such as fatigue, intoxication or infection may produce choreiform disturbances of motility in persons who had previously suffered from chorea. It was mentioned in that paper that endogenous psychoses occurring in such patients may thus acquire a peculiar colouring.

Although no special attention has been paid to motor behaviour in the records upon which this study is based, motility disturbances were noted in 10 out of 13 endogenous cases. Sometimes they were simply described as catatonic symptoms, sometimes as mannerisms or as agitated, disconnected, jerky movements. This material is not ample enough to cast new light on the motility psychoses; Lewis and Minski discussed these questions in a publication on chorea psychoses a short time ago. But one might refer briefly to those cases in our material which do not belong to the endogenous psychoses. Can one demonstrate in them permanent residues of chorea?

In all the four cases diagnosed as hysteria in this series, there is found evidence of motor disturbance.

(No. 11) 'Face and limbs twitch.'

(No. 12) 'Movements of hands and legs. Hysterical gait.'

(No. 13) 'Trembling movements . . . coarse jumpy tremor suggestive of hysterical chorea.'

(No. 24) Chorea accompanied by screaming attacks. . . . 'Her choreiform movements would cease with the utmost abruptness and it was thought that her condition was partly choreiform and partly hysterical.'

In all these cases the hysterical symptoms are much influenced and, indeed, partly determined by the existence of the residual motor symptoms. The question remains whether the tendency to produce conversion symptoms is based upon psychic factors or if the actual bodily condition (i.e. the choreic sequelæ) is responsible for it. In the light of the writer's previous investigations there is justification to stress the importance of the physical factors, even though it cannot be fully assessed in these cases.

Among the anxiety states one patient (no. 20) had been admitted because of complaints of fidgety movements. In the hospital she showed 'numerous irregular hysterical movements.' Another patient is described as 'excited, restless and uncontrolled.' As these features did not fit in with the clinical picture the doctor in charge was inclined to think of a hypomanic component; looking back one may suppose that there was a motility disturbance of postchoreic type which constituted the atypical traits. A third patient (no. 18) who suffered predominantly from fear of an undesired pregnancy had had two attacks of functional disturbance of gait prior to this neurosis. In the last case (no. 17), probably an endogenous depression, there was, as mentioned above, nothing but a marked disturbance of concentration which could remind one of the distractibility of choreics.

The pathoplastic significance of the postchoreic motor instability with regard to another disturbance has been described in a paper by Creak and Guttmann. It could be demonstrated in a group of patients with tics following chorea that the motor defect is of importance not only for the tic itself but also for the psychic phenomena connected with it. I have made some similar observations since and hope to be able to show in the course of further observations how the disturbance of motility merges into the complicated structure of neuroses and psychoses.

Motor behaviour as a special aspect of the personality deserves to be estimated more highly than it has been up to now. How important it is may be illustrated by the fact that the main stages of an individual's development can be defined by their particular motility. Also psychological types may be characterized by their motor qualities. In two quite recent publications use has been made of motility for definition of types. Earl distinguished over-movers and under-movers in morons, doing performance tests. Creak found among children with reading disabilities a group which was different from the others in respect to motility.

If one appreciates the significance of motor anomalies for such clinical purposes one will find interest not only in their descriptive side but also in their cause, pathogenesis and the interplay between them and the total constitution.

SUMMARY

Comparing the histories of psychotics, one finds chorea more frequently in schizophrenics than in manic-depressives. Also the premorbid personality

and heredity (previously investigated) point to a relationship of chorea with the schizophrenic group.

Chorea often leaves behind an abnormal motility which may enter as an important feature into the personality. This can be demonstrated in neuroses as a pathoplastic factor.

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APPENDIX

Case Histories

Case St. B.—Admitted April 8, 1935. *Complaint*: Depression accompanied by ideas of persecution and poison. *Family history*: Very poor family. Periods of great poverty owing to unemployment. Mother and two siblings said to suffer from nerves. No history of actual mental breakdowns. *Personal history*: Brought up in great poverty; night terrors and bed-wetting when young; bullied at school, reached top standard. Started work at 13. At age of 15 employed by booksellers and remained with firm for 23 years before retirement owing to ill-health. Gradually rose to manage bookshop but owing to ill-health his position fell until he again had to do inferior work. This upset him very much. Reserved nature, sensitive and overconscientious, ambitious to make a secure career for himself, not suspicious or jealous. Married 14 years, five children, devoted to family. *Previous illnesses*: Rheumatism and chorea at the age of seven, acne rosea eight years ago and has suffered all his life from mitral stenosis and enlarged heart. Frequently off work owing to early heart failure, or condition of his face. Corneal ulcers supervened three years ago and he has gradually been losing his eyesight. Treatment at various voluntary hospitals since 1928. *History of present illness*: Since 1928 has been unable to work efficiently owing to his illness and gave up work altogether in 1930. Long periods on and off in hospital. Christmas 1934, became depressed, thought that his family had no further use for him and might leave him and even suspected the doctors of poisoning his medicine. Complained that other patients talked about him. He also appears to have been hallucinated, both visually and aurally. Died May 25, 1935.

Case 4 (W.G., æt. 40).—Admitted August 30, 1932. *Complaint*: Sleeplessness and 'loss of will power.' *Family history*: Father committed suicide and had had asthma badly

for many years. Was subject to attacks of depression and had occasional ideas that he was being followed about. He occasionally drank alcohol immoderately. He was twice married, the patient being the offspring of his second marriage. An uncle on his mother's side died in an asylum of some unknown condition. *Personal history*: Had shingles as a child and was delicate. At 12 he had some twitching condition like St. Vitus' dance in his face and fidgetiness generally. On leaving school, where he did well, he worked on his father's farm and later took over the farm. He has since bought and sold a number of farms, always to his profit. He mortgaged his last farm, however, and disposed of it in a hurry somewhat to his detriment. He has been married 14 years and has four children, all of whom, except the first who died five years ago from meningitis, are healthy. He had brief spells of depression all his life, chiefly in morning, wearing off during the day. He has been energetic, religious, anxious and somewhat emotional. *History of present illness*: Began five months ago. He worried over his disposal of the farm, and over the illness of his children, which actually was of a transient and unimportant kind. Later he became more easily upset and had peculiar feelings in which he had the sensation of being very strong and very elated; these would last about 10 minutes. He had also frequently been agitated and prior to his admission had been so restless that it had been necessary to give him injections in the nursing home where he was treated prior to his admission. *Condition on admission*: Apart from a facial tic there was nothing remarkable in his general aspect, but in his talk he continually expressed fears as to the wisdom of his business arrangements and their effect upon him and his family. He was preoccupied about his health and at times agitated. Sensorium clear. He was unable to recognize that his fears about his business were excessive or that he was still ill. *Progress*: He worried extremely over any slight mishaps that crop up, e.g. nightmares, slight pains in the head, but on the whole he improved until some business arrangements which his solicitor had carried through for him were regarded by him as likely to be ruinous and he again became rather agitated and insisted on leaving hospital in order that he might attend to these matters himself. Re-admitted, February 21, 1933. *Interval history*: Was worried and sleepless, often wandering round the house at night thinking he was going to be ruined owing to financial reverses, which in fact were quite unimportant. 'Nerves never stopped working; felt screwed up in the head.' Finally started to have suicidal fantasies and felt he could no longer trust himself. *Progress*: On the whole became worse. Always agitated and extremely worried about himself. Depressed at times. Complained of an endless sequence of somatic symptoms, pains in all parts of the body, inability to sleep and eat, etc. Also feared he was losing grip on himself and would 'go mad.' Frequently demanded interviews, but could not be reassured. Finally discharged himself when he was transferred to the acute ward and went to a mental hospital.

Case 7 (Mrs. B.K., æt. 35).—Admitted January 6, 1933. Complaint: Confused. *Family history*: One sister suffers from chorea. *Previous history*: Early life unknown. Did well at school. At 24 was in hospital with chorea. Married at 25. Husband unemployed for a large part of the time. Four children healthy, one miscarriage. Always quiet, reserved and made few friends. Periods regular, moderate habits. No previous illnesses. *History of present illness*: Apparently since two years after marriage patient became unreliable and bad-tempered. Two years ago she became quieter and secretive. Following the birth of her baby about September 1932 patient avoided people, and thought people were looking at her. In December she told her husband that two of the children were not his. She then became restless and excited and noisy. *Condition on admission*: She is abstracted, does not reply to questions and is depressed and tremulous. In addition she shows many mannerisms and her conversation is disjointed. She says she is tortured, that people talk about her and say her children are dirty. She hears the voices of her brothers and cousins. *Physically*: Roughening of first sound at apex. W.R. negative. *Progress*: For a time patient remained quietly in bed refusing to speak and lying with her head covered. She soon became restless, said she heard patients whispering her name and

looked perplexed. She became impulsive and showed catatonic symptoms, viz. grimacing, attitudinizing, and resistiveness. She mistook identities, said the doctor was her brother, and that there were men in top hats about. She became aggressive and hostile in her attitude, gradually became more detached and on one occasion struck a nurse. Owing to the prognosis being considered bad she was discharged to another hospital. Husband still notices some signs of twitching.

Case 21 (A.Y., æt. 26).—Admitted March 31, 1932. *Complaint*: Sensations such as 'I am not here,' 'I feel as if I am not me,' 'This is not my mind.' *Family history*: Father neurotic, one maternal aunt in mental hospital (? Korsakow). *Personal history*: Normal development. No previous breakdowns. Reached top standard at school although she was away for nearly two years with chorea. St. Vitus' dance at 21. About the age of 20 she appears to have had vague neurotic symptoms. *Previous personality*: She was always nervous and jumpy, but sociable, enjoyed a good time, liked to be the centre of attention. Said to have been jealous. *On admission*: Depressed with depersonalization and some lack of vividness in appreciating her surroundings. There were in addition many hysterical features. She was shaky and her limbs trembled. She had affectations of voice and gestures, and employed many superlatives. There were no delusions and hallucinations. She made good progress and, according to a letter, has recovered since.

Case 22 (Mrs. L.F., æt. 36).—Admitted June 16, 1932. *Complaint*: Depression. *Family history*: Mother suffered from 'nerves.' One brother suffered from shellshock after the war. *Previous history*: Infancy and childhood normal. Suffered from chorea. Moderate at school. Married in 1917, had 10 children, four of whom died. Somewhat reserved, shy and sensitive. Moderate habits. *History of present illness*: Patient thought she had been sterilized in hospital and was rather upset when she found she was again pregnant. Last baby was born three months ago by Cæsarean section. Two days after operation she became depressed, apathetic, and thought people were talking about her. *Condition on admission*: Depressed, suspicious and paranoid. Weeps at times, rather vague and evasive. Thinks men are after her and that there is scandal being talked in her neighbourhood about her. *Physically*: Suffers from mitral stenosis. *Progress*: For a short time patient remained settled, but she gradually became restless, suspicious and abusive. Repeatedly attempted to run away, fought violently when an attempt was made to bring her back and refused to re-enter the hospital. Discharged not improved to another mental hospital.

Case 23 (Mrs. R.L., æt. 29).—Admitted May 21, 1932. *Complaint*: Depression. *Family history*: Sister died at 23 from cerebral hæmorrhage. *Previous history*: St. Vitus' dance at five or six years. Early history unknown. Left school at 14, standard five. Attack of neurasthenia in 1925, depressed. Attended heart hospital in 1929. Since then breathless, moderate habits. Married in 1926. Described as sensitive, easily disturbed. *History of present illness*: In May 1932 baby was born. Patient became suspicious, restless and talkative. *Condition on admission*: Resistive, talkative and rambling. Stays in bed but refuses medicine. Distractible. Thinks people are jealous of her. Eyes sunken, hectic flush. Disorientated. Incoherent. Memory impaired, and answers vague. Mitral stenosis. *Progress*: Patient showed no change after admission. Remained suspicious, restless, talkative, agitated, disconnected, restless at night. Refused food and medicine. Appeared terrified. Husband took patient home not improved against advice.

Case 24 (Miss L.M., æt. 19).—Admitted September 19, 1933. *Complaint*: Chorea accompanied by screaming attacks since July 1933. *Family history*: Patient is the seventh of 11 children, in poor circumstances. Family history negative except for maternal grandmother who became 'senile.' *Personal history*: Early childhood was uneventful apart from rheumatic fever which occurred for the first time at 14, recurring at 16½. On the second occasion it was accompanied by chorea which she has had off and on ever since. *History of present illness*: Before 13 normal, getting on fairly well with people although quarrels with other children. Between 13 and 16 energetic and sociable, fond of parties, lots of friends.

Since rheumatic fever difficulties at home, criticizes people. Swings of mood. Very clean, afraid people may criticize her. Never sits still. Fidgety with arm and legs ; movements of choreic type. At times large and spasmodic movements. In July 1933 was in hospital with rheumatic heart and chorea ; while there, had screaming attacks, one of which lasted on and off for three days. She became somewhat excitable and asked to see her mother, who had died some months previously ; complained of terrifying dreams. *Condition on admission* : Physical condition not satisfactory. She had an enlarged heart, mitral regurgitation and typical movements of chorea. Mental state : not cooperative and refused to talk. She appeared preoccupied but it was impossible to get any indication of her mental condition. There was some patchy anæsthesia of the left side of body. She denied any memory of her screaming attacks. *Progress* : A few days after admission she started to scream again, became dazed and ' far away ' in between the bouts of screaming. Her condition became so bad that treatment in the acute ward was required. While there her state varied ; at times she became friendly and cooperative, this was usually associated with improvement in the chorea. At other times she would be petulant and making complaints of the treatment. Her choreiform movements would cease abruptly and it was felt that her condition was partly choreiform and partly hysterical. She improved gradually and was finally discharged improved. She has had several such recurrences. Final condition moderately satisfactory.