before the Association, but, considering the doubts which at present exist as to what view the judge may take, and what ruling he may deliver to the jury in any case where the plea of insanity is raised, such cases are always full of interest. Moreover, although the case now reads as a connected whole, the history was not pieced together till the last moment, and witnesses had to be unearthed who could give evidence as to long-past events. It may be safely said that the result shows the value of getting the most complete history of the family, and of the past life and medical condition of any patient, whether he be an ordinary patient in a hospital or asylum, or a prisoner at the bar.

DISCUSSION

At the General Meeting of the Medico-Psychological Association, 23rd May, 1901.

Dr. THOMSON said the case Dr. Percy Smith had brought forward was one of those interesting cases in which doctors are convinced that murder may be committed in a state of unconsciousness, and he was sorry that some of the legal gentlemen who had taken part in the discussion on the previous paper had left the room. Having been called as a witness in the case he did not think Dr. Smith had omitted any of the details. He considered that the word "fit" was so loosely used by the relatives of patients, that not much reliance could be placed on their descriptions, and he doubted whether the man had really had epileptic fits in the past.

Dr. HYSLOP stated that he had found that a large percentage of cases of sunstroke were followed by epileptic seizures; some of these cases recovered after a sea voyage. He asked if care had been taken to exclude other conditions in which homicide is associated with unconsciousness.

Dr. SMITH replied briefly to the effect that the man's past history seemed to point to definite seizures, at least at one former period of his life, and that all the possibilities had been considered but were rejected in favour of a post-epileptic state, though of course nobody observed the man at the time of the murders.

Notes on Two Cases of Insanity following Chorea. By ROTHSAY C. STEWART, M.R.C.S.Eng., Superintendent, Leicester and Rutland Asylum.

THE apparent rarity of cases of insanity associated with chorea, has induced me to bring forward to you to-day two cases which have recently been in this asylum.

M. A—, a female æt. 16, was admitted into the Leicester Infirmary on February 13th, 1900, suffering from marked chorea. Is said to have had a previous attack. About a month afterwards she showed marked signs of mental disturbance, taking the form of melancholia. She was certified and removed to the Leicester Borough Asylum. From here she was transferred to the Leicester County Asylum on

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May 16th, 1900. While at the Infirmary she would sit in one position for a long time. She would not dress herself properly, and threatened to throw herself out of the window.

On admission here she had a dazed, vacant expression, was slow in action and speech, and the same question had to be repeated many times before an answer was elicited. Her memory, too, seemed to be at fault, and she could give no reliable account of her previous history.

There was no distinct evidence of chorea present. Lungs were normal; heart was regular; pulse 80; no cardiac murmur. Patellar reflex was dulled, pupils dilated, equal, and acted but slightly to light. Urine, sp. gr. 1002 and acid.

May 21st.—Takes little or no interest in her surroundings, wanders aimlessly about the ward, and is frequently in and out of bed. She takes her food well. Cries without any obvious reason.

28th.—Is beginning to do some odd jobs in the ward, and to take some notice of her surroundings.

June 5th.—Is much brighter, and less inclined to cry.

July 1st.—Is considerably improved, and is generally occupied in sewing or other work. Has gained flesh considerably.

September 15th.—Was discharged recovered.

Some few weeks after her discharge she was readmitted into the infirmary for gastric ulcer.

J. A. S—, female æt. 28, single, admitted December 27th, 1900.

History.—No indication of any neurosis in the family, and no history of rheumatism. When she was about twelve years old she was run over by a conveyance and very much shaken; shortly after this she is said to have developed chorea. Ever since then her character changed, and she has been different to other young girls. During the last six months she became much worse mentally; she would enter the neighbour's houses, walk into any room she fancied, lie down on a sofa or a bed, and sometimes proceed to undress herself. Lately she has become rather excited, and would create a disturbance in the street or in church. On one occasion she emptied a can of milk over her mother, and in other ways threatened her parents. She has taken her food indifferently, and slept badly at night.

On admission she was very restless, talked freely in a peculiar, affected manner, and repeated a remark several times over with much gasping; for instance, she would say: "You have two pianos—for deliverance—for me." "Yes, you have two pianos—for deliverance—for me." Or, again, "a gold watch and chain—for deliverance—for me." When talking she would pay little regard to questions put to her. There was considerable twitching of the facial muscles, and her eyes would turn upwards.

Physical condition.—A tall, slender woman with dark complexion. Hair brown, eyes dark grey. Pupils widely dilated, equal, but do not react to light. Patellar reflexes dulled. Abdominal tenderness. Tongue furred. Urine, sp. gr. 1010, acid, no albumen or sugar. The heart is slightly enlarged, action regular and forcible, and there is a double aortic murmur.

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The following are the notes in the case-book up to the present time:

January 9th, 1901.—Holds herself stiffly with arched back, talks in the same strain; unoccupied. Is given a mixture containing iron and arsenic.

23rd.—Is beginning to make herself useful in the ward.

February 12th.—Sings loudly in chapel and very much out of tune.

20th.—Feet and ankles œdematous. Temp. 100°.

24th.—Complains of pain all over; is sullen and morose; is confined to bed.

28th.—Left knee was swollen. Temp. 100°. Cries out at night at intervals.

March 3rd.—The swelling has gone down. Says she has no pain, and does not cry out, but she is very weak, and has some difficulty in getting out of bed. She is now very communicative and polite in her address.

30th.—Answered questions in a snappy manner, and appeared very cross. Still repeats sentences. Is stronger and able to leave her bed for a part of the day.

Remarks.—Cases of choreic insanity have apparently certain symptoms in common; there is change of temper and character with suspicions of persons around them; there is loss of memory and a diminished power of attention.

Dr. Arndt in his discussion on "Chorea and Psychosis," says that chorea does not exist without more or less simultaneous affection of the intellectual faculties; that in many cases it is so slight as to escape observation, and that the main features are incoherence of ideas and inattention to surroundings.

The seat of the disturbance is probably in the cortex, but morbid anatomy has not yet given us any change of sufficient frequency to indicate the primary lesion. Chorea has been explained by some as due to minute emboli, and Letschenow has put forward the theory that the disease is in the optic thalami.

Dr. Clouston has recorded two cases of choreic insanity which were closely associated with rheumatism, but in neither of these was there any cardiac murmur, and he lends his support to the hypothesis that the cause is to be found in a change of the blood. Leube accepts the idea that the blood-change is a chemical one, having a specific action on certain parts of the nervous system.

The most frequent change found *post mortem* is endocarditis with minute vegetations on one or more valves, but facts have

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been brought forward to prove that the endocarditis is often secondary to the chorea.

In the two cases I have quoted there is a history of more than one attack of chorea, and in my opinion this rather points to some change in the composition of the blood.

Discussion

At the Spring Meeting of the Northern and Midland Division, 3rd April, 1901.

The President said he was quite sure they would agree with him in saying their hearty thanks were due to Dr. Stewart for these interesting notes. Sir W. Gowers held that chorea was always due to an alteration in the blood state. It was also held by many authorities to be due to a microbe in the blood, but unfortunately the microbe had not yet been discovered. In quite a number of cases he had had under his own care lately he had noticed that chorea had been associated with hysteria. In three cases the hysteria was quite as marked as the other condition. Of course many authorities held that there was a close relationship between rheumatism and chorea; indeed, he believed Dr. Cheadle went so far as to say that every case of chorea was due to rheumatism, but that in his (the Chairman's) experience was not true. Many cases were due to fright which caused an alteration in the blood-state, as rheumatism would also do.

Dr. Macphail said that in the last few years he had had sent to him two adolescent girls, who had had the advantage of seeing one or two well-known physicians. They had been in various hospitals, and were both diagnosed before he got them as cases of chorea. Eventually both turned out to be cases of general paralysis.

Dr. Pope (Senior Physician, Leicester Infirmary) said they had been kind enough to let him attend their meeting as a visitor, and as one of the cases referred to by Dr. Stewart was under his care, they would perhaps allow him to make a few observations with regard to the case of the elder girl. He could not add very much to what Dr. Stewart had said about the mental condition. She was, so far as he was able to judge, almost a typical case of melancholia. There was one point about the case which Dr. Stewart mentioned as being unusual, namely, that the reflex knee-jerk was rather dull. She had, however, been treated by large doses of arsenic—his usual custom in these cases—and that might account for the knee-jerk not being very brisk. In chorea the knee-jerk is rather brisk than otherwise. Another case came under his notice when he was examining some backward children in the schools in Leicester. It was the case of a boy of twelve, who a year or two ago was described by his own doctor as an idiot. No doubt the diagnosis was correct as far as the doctor could see at that time. The boy was unclean in his habits, used to steal and lie, and altogether had apparently no moral sense whatever. Well, he (Dr. Pope) saw the child eight or nine months perhaps after the certificate of idiocy had been given, and at that time he described him as an imbecile. He was still dirty, would wander about and steal, had a dull sullen look, and would not answer questions, and had very much the look of an imbecile. He saw the child again, and the teacher rather demurred to the diagnosis of imbecility, saying the child was not hopeless. It was three months after his first examination that he saw the boy again, and he certainly was not an imbecile then. He had begun to talk quite rationally and to answer questions, could do little sums, and was beginning to know his letters well, whilst he could repeat a certain amount of what had been read to him. That child had had a very bad attack of chorea at the age of five. Of course, the opinion of their members here would be better than his, but it struck him that this was really a case of dementia following chorea. The child was a dement when he was described as an idiot, and passed through the stage of imbecility. Now he was better. Then they came to the question of the pathology of these cases. Of course, it was in doubt. He was afraid he must disagree with the President, for his experience was that chorea was as much an evidence of rheumatism as were rheumatic nodules. He thought it was almost invariably

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a manifestation of the rheumatic state, excluding one or two abnormal forms of chorea. He thought the child that had had chorea would often develop rheumatism afterwards or heart trouble, and other conditions which accompanied the rheumatic state. Well, then, what was it due to? They did not know. They might suppose either that a bacillus invades the brain and affects the large cells, or else the bacillus itself might be the origin of some of the small emboli which had been found in cases of chorea. These cases of insanity following chorea resembled insanity following acute diseases; possibly the pathology of them might be found to be the same as the pathology of the other types of insanity, which he believed was quite unexplained at present. It had been his fortune to see a large number of cases of insanity of short duration following typhoid fever. After all the febrile symptoms had passed away, and the patients might be considered to be in a state of convalescence, he had seen almost every form of insanity—melancholic and violent cases—and in one case he remembered particularly that long after the patient was able to be dressed and get about, there was distinct evidence of what might be described as mania. He had seen two cases of persistent delusions lasting for weeks; one man said he had got a broken leg, and it was not until he had been actually put on his feet and made to walk across the ward that he would believe his leg was not broken. Dr. Pope thought, perhaps, that this is the direction in which they ought to look for the explanation of the pathology of these cases.

Dr. STEWART, replying on the discussion, said Dr. Pope had suggested that the doses of arsenic given to the elder girl would account for the knee-jerk being dull. But the second patient had also got a dull knee-jerk, and as no arsenic had been given in that case the explanation did not seem to hold good. These were the only two cases he had ever seen in his life, but he must say that whether they were due to rheumatic poison or not, it was still *some* poison. He did not think it was due to the emboli, or, if it were, how was it these patients had more than one attack? Neither did he think rheumatic poison was sufficient to account for it, because they did not get any history of rheumatism. In the case of the second girl there might be a suspicion of rheumatism, because her ankles were swollen in the last month, and the knee-joints also, but she had never had rheumatism before, and in most cases he rather thought the chorea was due to some poison other than rheumatism.

A Case of Glioma of the Cerebrum. By W. J. A. ERSKINE, M.D., and A. F. SHOYER, M.D.

A. J. B—, æt. 25, no occupation, admitted January 19th, 1897. Epileptic, not suicidal, not dangerous. Duration of attack three years.

Medical certificate.—She is irrational, noisy, and violent in her behaviour, trying to rush downstairs, and throws furniture about regardless of consequences. She has frequent epileptic fits, during and after which she is dangerous to herself and others.

Personal and family history.—Can read and write; factory hand. Has had three children, all alive and healthy. Age of youngest, four years on December 11th, 1896. None have fits, none weak in mind. No miscarriages. She was industrious and regular in habits, sober, of mild and feeble disposition, which has not changed. She was odd and peculiar, in so far as after a fit she would be strange in her manner for about ten minutes, after which she would be all right. Always healthy. Menstruation regular.

Family history.—No history of consumption, drink, or insanity.

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