Short Notes and Clinical Cases.

A NOTE ON THREE CASES OF DISSEMINATED SCLEROSIS ASSOCIATED WITH EPILEPSY.

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WHILE the true nature of 'idiopathic' epilepsy remains obscure, the number of organic nervous diseases in which some variety of epileptic attack is recognised as a symptom is steadily increasing. In the issue of this JOURNAL for August 1925, S. A. Kinnier Wilson and H. J. MacBride drew attention to the association of epilepsy with disseminated sclerosis, giving details of eight recorded cases and of seven cases personally observed by them. This association is of such obvious importance and clinical interest that it seems desirable to put on record three other cases which I have observed during the past few months.

CLINICAL HISTORIES.

CASE 1. Disseminated sclerosis associated with Jacksonian epilepsy. Male, age 32; motor driver.

History: In the summer of 1924 this man was off work for seven weeks on account of numbness from the waist downwards, with some weakness of the legs and a tendency to stagger. He appeared to recover completely and did his usual work for a year, but in July 1925 he complained of double vision which lasted for four days and made it necessary for him to wear a shade over one eye. In August 1925 he suddenly began to suffer from attacks of twitching on the right side of the body, and these recurred daily for a fortnight before he came under observation. He was admitted to hospital, where many typical attacks of rightsided Jacksonian epilepsy were observed. The attacks were very brief, lasting about half a minute, and there was no loss of consciousness. The movements affected simultaneously the hand and the angle of the mouth, the leg being only slightly involved; during the attack, and for about a minute after, the patient could not speak, and for some minutes after there was numbness all down the right side of the body. From twenty to forty of these attacks occurred daily for ten days after admission, when they ceased abruptly and have never returned. No family history of epilepsy could be obtained.

Examination at the time of admission: There was slight dysarthria: slight lateral nystagmus was present, the knee and ankle jerks were very active, and the abdominal reflexes were absent. The plantar reflexes were flexor. The Wassermann reaction was negative in the blood and cerebrospinal fluid. The patient complained of dryness of the mouth and was found to be suffering from diabetes; sugar and acetone were present in the urine, and there was a moderate degree of hyperglycæmia with a typical curve (rising to 0.300 per cent. one and a half hours after 50 g. glucose).

Present Condition: Diabetes under control by diet and insulin. Patient is bedridden by extreme weakness and ataxia; mental state optimistic and suggestive of the disease; speech scanning. Distinct pallor of optic discs; well-marked nystagmus of cerebellar

type, chiefly on conjugate deviation to left. Intention-tremor of both upper limbs. Abdominal reflexes absent. Knee and ankle jerks active; plantar responses both extensor.

CASE 2. Disseminated sclerosis: onset with generalised epileptic attacks. Male, age 24; shop assistant.

History: In March 1923, at the age of 21, the patient began to have fits; he was previously in normal health and had no fits in infancy or childhood. No family history was obtained of any similar affection. He has since had nine similar fits. The attack occurs suddenly with no warning; one attack occurred when he was asleep in bed and his brother, sleeping beside him, was wakened by a gurgling noise. He loses consciousness completely and "goes stiff," but is said to lie still and no twitching of the limbs has been observed. He snores loudly during the attack. He does not know if he changes colour but after one attack his left eye was "filled with blood." Two or three times he has vomited violently after an attack and he is always left drowsy and with a severe headache, and is unable to recognise anybody for about twenty minutes. In December 1924, one year and nine months after the first fit, he complained of numbness of the right side of the face and the right arm and leg, with some weakness and dragging of the right foot; this lasted for four days and then passed off. In June 1925 the numbness of the right side of the body returned, and he came to hospital complaining of this. He then stated that the vision of the left eye had become defective and that he had recently had double vision lasting for a week. He said further that he had felt some slight quivering at times in the right arm, and that he was subject to occasional headaches over the right temple.

Examination: Nothing abnormal was found in the optic discs, but there was well-marked nystagmus on lateral deviation to right and left, with a quick outward phase and slow recession. There was also slight dysarthria. There was some swaying of the extended right arm with the eyes closed, and diminution of the power of grip in the right hand. The tendon reflexes were very active, and greater in the right limbs than the left; the plantar reflexes were indefinitely flexor with a tendency to extension, and the muscular tone of the right lower limb was increased. The upper abdominal reflexes were barely obtainable, and the lower abdominal reflexes were absent. There was profound astereognosis in the right hand, and considerable loss of muscle sense in the right leg. The Wassermann reaction of the blood was negative.

Present Condition: A month after the first examination marked improvement had occurred. The partial right hemiplegia had cleared up and the astereognosis in the right hand had almost disappeared. Some pallor of the temporal sides of the optic discs was noticeable, however, and this is more evident at the present time. Slight nystagmus is still present, and the tendon reflexes remain abnormally active but the plantar responses are flexor; the abdominal reflexes remain faint but are elicited more easily on the right than on the left. The patient now complains of slight numbness in the left limbs and trunk, but apart from this the remission of symptoms and physical signs is remarkably complete.

CASE 3. Disseminated sclerosis; onset with petit mal seizures. Female, age 19; domestic servant.

History: In February 1926 this patient began to have 'fainting attacks.' The first attack occurred when she was washing windows; without any warning she "turned helpless" and fell off the steps on which she was working. Since then she has had eleven similar attacks. The history is difficult to elicit; the patient does not think she loses consciousness, and the attack is over in less than a minute. There is no convulsion or twitching of the limbs. After she "comes out" she feels weak and has to remain lying down. Two or three attacks have occurred when she has been sitting at meals or reading; she has fallen backward in the chair for a moment and then "come out" of the attack. Except for these attacks the patient feels quite well and has had no previous illness of note; there is no family history of epilepsy.

Present Condition : The patient has been examined on several occasions since she first attended hospital in April 1926, three months after the onset of the attacks. Her general condition is good and she does not appear of a nervous temperament. There are no signs of disease in the heart, lungs or abdomen. At the first examination the optic discs and other cranial nerves appeared normal, and the only abnormalities detected were a left extensor plantar response and weakness of the abdominal reflexes; these reflexes tired readily and were weaker on the left side. The left plantar response has remained consistently extensor. The right plantar response has changed in character, and while usually indefinitely flexor was distinctly extensor on one occasion. There is now slight but distinct nystagmus on conjugate lateral deviation in both directions, with a quick outward phase and slow recession. The optic discs now show suspicious pallor of their outer halves, and there is slight weakness of the left angle of the mouth in both volitional and emotional movements. No alteration from the normal is noticeable in the tendon reflexes, and there is no inco-ordination and no sensory disturbances. The Wassermann reaction of the blood is negative.

DISCUSSION.

In Cases 1 and 2 the diagnosis of disseminated sclerosis would appear to be beyond doubt. The special interest of Case 1 lies in the development of Jacksonian seizures in a patient already the subject of disseminated sclerosis; twelve months previously this man had transient numbness from the waist downwards, and five weeks before the onset of epileptiform attacks he had diplopia lasting for four days. Furthermore, at the time of onset of the seizures he had sufficiently definite physical signs of the disease. Wilson and MacBride saw no case, and found none in the literature, in which Jacksonian epilepsy supervened in an established case of disseminated sclerosis; in all their cases the Jacksonian attacks were an initial or very early symptom.

In Case 2 generalised epileptic attacks preceded all other symptoms by nearly two years, and have continued to recur from time to time, while the symptoms and physical signs of disseminated sclerosis have advanced and remitted in characteristic fashion. Wilson and MacBride report one case in which generalised fits preceded any other manifestations of nervous disease by a considerable interval, and in this case the fits ceased some twelve months before evidences of disseminated sclerosis appeared. In another case (Chartier) which they quote, generalised fits were the first symptom, but there is no record as to whether they persisted in the later stages of the disease.

In Case 3 the absence of a history of definite loss of consciousness may be held to throw doubt on the nature of the attacks. Especially is this the case as Wilson and MacBride do not record any definite case of petit mal occurring in disseminated sclerosis, though they refer to one in which this combination appears probable. This case, therefore, is put forward with reserve. One can only say that the diagnosis of petit mal was made with considerable confidence from the history, and no suspicion of disseminated sclerosis arose until the routine physical examination revealed evidence of organic disease.

REFERENCE.

WILSON, KINNIER and MACBRIDE, H. J., "Epilepsy as a Symptom of Disseminated Sclerosis," *Journ. of Neurol. and Psychopathol.*, 1925, vi, 91.