Notes on a Case of Lethargic Encephalitis

By JAMES WHITTON, M.D., F.R.C.S.E.

On 14th July I saw a pupil of Waitaki High School. He was in bed. He lay with his eyes closed, and was apparently asleep. When spoken to he opened his eyes and looked at you, answering your questions slowly. He complained of being tired, said he had headache and pains in his limbs, also that he saw double.

The previous history is as follows:—On Sunday, 6th July, he attended church parade, and a thanksgiving service in the Opera House in the afternoon. He complained of fatigue after this service. On 10th July he refused to join in a game of football, as he said he did not feel fit. On the 12th his companions noticed that he was sleepy at meals. On the 13th his condition at church parade was so noticeable that he was ordered to bed.

Condition when first seen—Temperature 101.8, pulse 112. Goes to sleep while you speak to him; face flushed; tongue coated; superficial reflexes increased; patellar diminished; Kernig's sign present; Babinsky sign absent; internal strabismus left eye; answers questions in a slow, drawling manner.

He was moved to the Isolation Cottage Hospital and a nurse obtained. He was given an ordinary mixture containing pot. cit. sp. aeth. nit. and liq. ammon. acet.; diet only liquids. On the 14th and 15th he had retention of urine, afterwards it was passed involuntarily for a time. For the next week his condition got worse, his lethargy deepened, he could not turn round in bed without assistance; when asked to put out his tongue, he only put it out a little way, indicating paresis of lingual muscles; his facial expression became vacant, indicating double facial paralysis.

On 16th July he was seen by Dr. Colquhoun, who carefully examined him and did a lumbar puncture; fluid quite clear. Diagnosis of lethargic encephalitis agreed with.

On 19th July Dr. Pitts, of Waimate, saw him and carefully examined him; did a lumbar puncture, no fluid obtainable. Opthalmoscopic examination showed optic neuritis commencing in left eye.

On 21st July more drowsy; will not put out tongue when asked; fingers plucking at bedclothes; Babinsky sign in left foot; nystagmus in left eye; strabismus still present; ptosis of both eyelids.

From that date he remained for about a week in a semi-comatose state, remaining on his back and unable to move; passed urine involuntarily; bowels very constipated, requiring an enema every day. About this time he ceased speaking—when asked questions he would only groan. However, his intellectual centres remained intact, apparently, for he would smile when told a funny story; sometimes, indeed, he laughed audibly when told some of the doings of his classmates. His temperature at this time ranged from 100 degrees in the evening to 98 in the morning.

On 23rd July he opened his eyes for about three hours and looked out of the window; was more alert; moved in bed; asked for urinal; strabismus not noticeable.

On 24th July ptosis of eyelids not so noticeable; his eyes are more open; can put his tongue further out; takes notice; perspiring freely.

On 25th July sudamina rash on chest and abdomen, morning temperature 97.

On 26th July I was hurriedly sent for, and on arrival found him in a state of collapse,

face pale, cold perspiration on face and forehead, pulse thready. He was given an injection of ½ c.c. of pituitrin, a teaspoonful of brandy every hour, and saline injections per rectum. He recovered in the evening. This collapse coincided with a fall in the temperature to 97 in the morning and 98 in the evening. The temperature remained like this for one month, after which it reached 97.4 in the morning and 98 in the evening, but never reached the normal even when he left for his home on 16th September.

From 26th July to 2nd August he was in a critical state. On 1st August he again collapsed, but not to the same extent, requiring ½ c.c. of pituitrin. His pulse at this time came down, and after 8th August never reached 100.

On 27th July some twitching of the lips and facial muscles of left side; sweats continue; bed-sore threatening on sacrum.

On 5th August he can very slowly bring a cup to his lips; not nearly so somnolent; cannot speak—only groans when spoken to.

On 8th August condition resembles that of a patient recovering from a bad attack of enteric. All movements are very slow; still groans when spoken to, but is intelligent; does not now shut his eyes except when asleep, of which he averages eight hours. Reflexes examined; still absent except plantar, which are flexor. Commencing to eat solid food; bowels still constipated; massage of muscles commenced.

On 19th August fibrillary twitching of muscles of both eyeballs, giving his face a remarkable appearance. There is also twitching of muscles of both legs, especially long flexor of right toe. This causes pain and makes him groan and weep. It also keeps him awake. He was given 1-6th of a grain of morphia and had seven hours' sleep.

On 21st August patellar reflex still absent; both great toes in state of painful extension; rigidity of muscles of left arm causing contraction of elbow; fingers of left hand extended, suggesting othetosis. The contraction soon extended to the muscles of the right arm, and for a time the position of both arms and hands was one of flexion, similar to what is seen in a case of congenital spastic paralysis. There is also a painful contraction of the knees, coming on at intervals of about five minutes, causing him to groan loudly and weep bitterly. Fortunately a remedy was found in hot baths, of which he had two daily. This benefited the contractions and gave great relief. Splints also were put on the legs and arms, mitigating the severity of the contractions.

On 25th August Dr. Pitts saw him again, and noted that he had become a good deal thinner. His appearance did not now suggest a rapid recovery, nevertheless things slowly improved. He regained his appetite, his bowels began to act, and the muscular contractions ceased to disturb his sleep.

On 3rd September splints were discontinued and he was able to walk after a fashion to his bath with the help of two nurses.

On 6th September speech returned in a very slow and halting fashion.

On 10th September up and dressed; can stand and take a few steps.

On 16th September taken home in a motor-car.

On 4th October his father writes: "T. doing splendidly; can dress and undress himself without help. He can walk about the house quite well and can even run a little. Weight, 7st. 10lb.; before his illness he was 8st. His speaking has steadily improved, and his memory and intellect are as keen and as good as ever."

Comments on the Case.—The boy was seriously ill for some weeks, and from a clinical point of view there was inflammation of the cerebral cortex, involving not only the nerve roots at the base, but also the convolutions. The remarkable point is that the destructive influence stopped short of destroying the nerve cells, as occurs in polio-encephalitis and polio-myelitis. On 25th August it seemed that one could only take a gloomy outlook on his future prospects, yet by September things had all cleared up and his cerebral mechanism was left intact.

In conclusion I will quote the decision come to by the Medical Research Committee in conjunction with the British Local Government Board, an epitome of the results of which was given by Lieut.-Colonel S. P. James, I.M.S., in a discussion which took place at the Royal Society of Medicine: "A decided opinion was formed that encephalitis lethargica is not a variety of acute polio-myelitis, either from a clinical or epidemiological point of view. It is not yet certain what its exact nature is; but it is thought probable that the pathogenous organisms, like those of cerebro-spinal fever and acute polio-myelitis, are frequently present in people who show no clinical signs of disease until their resistance is lowered or the organism becomes so virulent that they cannot withstand its invasion."

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