A CASE OF POSTERO-LATERAL SCLEROSIS FOLLOW-
ING STREPTOCOCCUS INFECTION—TRANSMITTED
TO RABBIT AS MYELITIS*

BY DR. EDWARD M. WILLIAMS

SIoux CITY, IOWA

A certain number of cases of myelitis have been attributed to cold or congestion, or other unproven sources. Several cases of this obscure type having come under my observation, the conclusion was formed that there must have been something in the nature of a local infection as a cause.

One case in particular, in which I was so positive of syphilis as to give a course of anti-syphilitic treatment despite the patient's protests of impossibility of infection and negative reports on the blood and spinal fluid from two reliable laboratories, was of especial interest. This case has been added as a probable secondary infection of some kind.

The first patient described had the symptoms of a postero-lateral sclerosis with no definite or evident cause. Finding six old roots in the anterior lower jaw, these were removed and a culture made by Dr. C. Maxwell—a hemolytic streptococcus was found which injected into a rabbit gave a posterior paraplegia with incontinence of urine and feces fourteen days after the inoculation. Further culture from the cord did not show anything as the rabbit was probably killed too soon after the occurrence of the paralysis (third day). The cord showed an area of myelitis and softening.

CASE I. Woman, age 40. Patient of Dr. R. Q. Rowse.

Attack of weakness of legs two years previously, cleared up in a few weeks. Two months before my examination she began to get weak and uncertain in the movements of her legs. A diagnosis of pernicious anemia was made at the time. The weakness in legs gradually became worse. At the time of the examination she could scarcely walk by assistance of two nurses, gait was spastic ataxic type. Paresthesia, but no objective sensory changes in legs, except some slight impairment of sense of touch and position. Legs extremely ataxic and spastic. Babinski positive on left, doubtful on the right—clonus of both ankles and increased knee jerks. The blood examination gave negative Wassermann and slight degree of

* Read by title at the forty-second annual meeting of the American Neurological Association, May 8, 9, and 10, 1916.

anemia, no indication of pernicious type. Optic, auditory and other cranial nerves normal. Cultures were taken from teeth removed as mentioned above. Case later developed incontinence of urine and feces, has been about the same in regard to the paraplegia.

CASE II. Age 30. Patient of Dr. R. Q. Rowse.

Operated for appendicitis—thickened adherent appendix—several weeks before examination. Improved, then a week before examination became worse, legs weak, etc., as follows:

When first observed the patient would walk across the room, but only with difficulty, said his legs felt "too loose and too stiff both," also said they felt numb and dead. Had involuntary defecation. Mentioned having had short periods in which he could not say what he wanted to say during last few weeks. During my examination he had such a period lasting about five minutes in which to every question he would answer, "Dowinks damm it dowinks." When he recovered from the aphasic attacks he could remember my questions and said he understood them, but could not get the right words, claimed he never used the word "dowinks" before.

Examination.—Pupils dilated and equal. Reacted well to accommodation, but light reaction doubtful. Discs were poorly outlined and hazy. Saw double in looking toward the right in distance, average distance vision normal. Prolonged expiratory murmur in right apex. Blood pressure 95-55. Reduction of sensation to pin prick and touch up to nipple line—not positive however. Abdominal, cremasteric and plantar reflexes absent, no clonus. X-ray negative. Two days later the patient was unable to move the legs at all, some numbness in ulnar distribution of left arm. Reflexes of both legs very much exaggerated, both knee jerks and ankle jerks. Spasmodic type of bladder incontinence occurring periodically. Previous examination showed greater haziness of discs, left showing more prominence. An irregular temperature not any higher than 100 in the evenings was present. The case remained at a standstill for several weeks, during which active anti-syphilitic treatment was given. The lumbar puncture showed some pressure, the fluid was clear, slight increase of lymphocytes—no tubercle bacilli, no fibrin clot and negative Wassermann. Left hospital in several weeks unimproved.