

1962

CASE 9

Submitted by: Dr. Raymond A. Clasen, Presbyterian-St. Luke's Hospital,  
Chicago, Illinois.

A 51 year old, female, first admitted complaining of headaches accompanied by visual disturbances of two months' duration. Diabetes had been discovered two years previously and, at the time of admission, she was on 25 units of NPH insulin daily. On physical examination, the only neurologic abnormality demonstrated was an absence of ankle jerks. Lumbar puncture revealed clear colorless fluid, under a pressure of 100 mm. and normal fluid dynamics. The cell count revealed 24 lymphocytes; 90 RBC's, 50% of which were crenated. Chemical examination revealed: sugar, 58 mg.%; protein, 170 mg.%; chloride, 115 mEq/L. Wasserman reaction was negative. The gold curve was 0001221000. There was no growth on routine bacteriologic culture. The EEG showed a paroxysmal slow wave focus in the right fronto-temporal area, with independent slowing in the left temporal area. While in the hospital, the patient showed transient episodes of lethargy and mental confusion. The headaches gradually cleared and she was discharged after two weeks.

While at home the patient experienced periods of disorientation. Her speech became slow and halting. There was a progressive disturbance of gait and she gradually became completely bedridden, being able to sit only with difficulty. She was readmitted 2 months later, at which time neurologic examination revealed absence of ankle and knee jerks and a bilateral palmomental reflex. Multiple lumbar punctures revealed the following ranges of values: pressure, 90 to 280 mm; lymphocytes, 36 to 174; protein, 88 to 512 mg.%; chloride, 115 to 131 mEq/L; sugar, 98 to 172 mg.%. Repeated gram stains, acid fast stains for fungi, and bacteriologic cultures were negative. During the course of her hospitalization her dementia increased to the point of her being often unresponsive to verbal, and occasionally to painful, stimuli. She became incontinent of urine. One week after admission she suddenly developed a right hemiplegia which, in the succeeding weeks, increased in intensity to almost complete paralysis of both upper and lower extremities and the right face. In the fourth week her fever, which had been low grade, began to reach heights of 103-104°. She was given courses of I.V. tetracyclin and amphotericin, without noticeable improvement. In the fifth week she was persistently comatose. She expired 5 weeks later, in vasomotor collapse, which was unresponsive to therapy.

Significant autopsy findings were limited to the brain. Grossly, this showed questionable small areas of discoloration in the white matter of both cerebral hemispheres. Microscopically, the changes illustrated on the accompanying slides were found scattered throughout both cerebral hemispheres and the brainstem. A virus, as yet unidentified, was isolated on monkey kidney culture from both the spinal fluid during life and the brain at the time of autopsy.