

CASE 2

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This is the case of a white female who suddenly developed left-sided convulsions at the age of 14 years. Her pediatric history was non-contributory. At the age of 6 years and 7 months she had uncomplicated measles. At the time of her first admission she was in a confused state following seven focal seizures. There were no positive physical findings and the neurological examination was within normal limits. A spinal tap revealed clear colorless fluid under a pressure of 400 mm. but the patient was uncooperative. Examination of the spinal fluid revealed no cells and a protein of 31 mg.%. An EEG showed a right fronto-temporal slow wave focus with a spike seizure in the mid-temporal area. She improved gradually and was discharged on the 8th hospital day.

Following her discharge the EEG abnormalities increased in severity. She was, therefore, readmitted one month later for a spinal tap. This revealed clear colorless fluid under a pressure of 174 mm. Chemical examination revealed: protein, 31 mg.%; sugar, 75 mg.%; chloride, 125 mEq/L and a negative colloidal gold curve. There were no cells and the Wasserman was negative. Because of the fact that the patient planned to return to school and there was a measles epidemic at this institution, she was given prophylactic gamma globulin following her discharge on the second hospital day.

The patient subsequently visited her school but did not attend classes. On the 12th day after her discharge she retired in good spirits. On the following morning she could not be aroused. She was brought to the hospital immediately. Her pupils were fixed and dilated and there was a bilateral papilledema. Just after admission her respirations ceased. She was placed on the Bennett respirator, given hypertonic urea and taken to surgery. Bilateral burr holes revealed moderate pressure. The left ventricle was cannulated and blood tinged fluid under moderate pressure was obtained. Cannulation on the right produced a mixture of softened brain and blood. Following surgery the patient did not regain consciousness and never again breathed spontaneously. She expired one week later, 3 months from the onset of her symptoms.

At autopsy the significant findings were confined to the brain. When the scalp was reflected, cerebral tissue exuded from the burr holes. The brain was extremely soft and could be removed only with great difficulty. A large mass of clotted blood replaced a portion of the right temporal lobe. The brain was sectioned following formalin fixation. It showed marked anoxic changes but there was no gross evidence of tumor. The sections submitted are from the area adjacent to the hemorrhage. Cerebral tissue obtained at the time of autopsy was incubated in eggs and tissue culture. A viral agent was isolated in monkey kidney cells. Its cytopathologic effects were specifically neutralized by measles antisera.