[Enterovirus B, Human]

GRAND ROUNDS

December 10, 1958

[redacted] This 9 month old white child was first admitted to [redacted] on [redacted]/58 with a complaint of drowsiness and vomiting. Her previous history showed she had been a little slow in development but not strikingly so. One week prior to admission she vomited four times for no apparent reason. One day prior to admission drowsiness and vomiting recurred with a temperature of 101. Physical examination was negative except for drowsiness. A lumbar puncture showed opening pressure of 430 mm. of water; there were 10,500 red cells, 3 polymorphs and 5 lymphocytes, sugar 80 mg%, protein 72 mg%. The patient was treated with intravenous fluids and improved dramatically, so she was discharged on [redacted] 1958.

Four days following discharge the patient again developed marked drowsiness and vomiting. She was readmitted to the hospital and within 24 hours her condition had become much worse, with generalized flaccidity, Cheyne-Stokes respiration, and sub-convulsive twitching. Her color was very poor, and the pulse rate slow. The fontanelle appeared a little tense; the fundi were normal. Lumbar puncture showed clear fluid with 423 crenated red cells, 30 polymorphs and 70 lymphocytes. Sugar was 94 mg%, protein 72 mg%. Diagnostic impressions included: (a) subdural hematoma, (b) encephalitis (c) heavy metal or other intoxication (d) cerebral vascular accident (e) cerebral abscess.

Subdural taps were negative, but following the taps the baby developed a tonic convulsion, and her condition appeared critical. Following neuro-surgical consultation a ventricular tap was done which revealed clear fluid under pressure of 380 mm. of water. Ventriculograms showed dilatation of both lateral ventricles and the third ventricle with an apparent mass encroaching on the cavity of the right lateral ventricle. Although the possibility of an obstructing posterior fossa neoplasm was considered, dye injected into the ventricles was recovered in the lumbar sac. Following ventricular tap the baby's condition improved somewhat but deteriorated over 12 hours with evidence of increased pressure, and a craniotomy and Torhildsen shunt was performed. No evidence of neoplasm was found. At this time also the baby was started on ACTH and INH, since it was felt the possibility of tuberculous meningitis had not been excluded.

During the subsequent 10 days the baby improved slightly. At the beginning it was felt that she could neither see nor hear, and the pupils were fixed. The pupil reaction and hearing gradually returned. However, because of bulging of the occipital burr hole, it was decided to perform a lumbar peritoneal shunt to control an apparent defect in absorption of spinal fluid. Following this the patient showed slow but steady improvement, and there were no further untoward happenings.

Cultures of the spinal fluid for cryptococcus and tuberculosis were negative. A histoplasmin test was negative. However, acute and convalescent sera showed a rise in titer against Coxsackie B_5 virus, and this virus was cultured from the throat washings, stool, and cerebrospinal fluid.