## CASE 9

Submitted by: R. L. Davis, University of Southern California
Los Angeles, California

## Clinical History

A 45 year old male was found on the street unconscious and taken to the county jail. The next day, he was noted to have right hemiparesis, "diabetes" and a fever of 102° F. He was transferred to LAC-USC Medical Center.

Admission vital signs were: P 100 with normal rhythm, R 24, T 104° F., BP 120/60. He was WD and WN but aphasic, incontinent, hiccuping, and in mild distress. He had right hemiparesis and a left facial weakness with the mouth slightly drawn to the left. The pupils were equal and extraocular movements were intact. There were a few rales in the left lower lung field. There was slight abdominal guarding and a questionably palpable liver edge at the right costal margin.

The patient responded to commands. There were intact corneal, biceps, and triceps reflexes on the right, but they were decreased on the left. The knee jerk was normal on the left but hyperactive on the right, and a right Babinski sign.

An initial EEG and lumbar puncture were normal. Other laboratory studies were also within normal limits except for a few pus cells in the urine, and a reversed A/G ratio (3.5/4.6). He was treated with penicillin for pneumonia. He improved, began to take small feedings, and stabilized during the first two weeks of his stay in hospital. He then spiked a fever to 104.6° rectally, respirations became quite loud at a rate of 28/m, and he had a pulse of 120. Respiratory rate increased further over the next few days and there were no breath sounds on the right side due to a RLL pneumonia. The urine was grossly purulent with many gram-positive cocci and gram-negative rods. He was treated with methicillin and gentamycin and put on the cooling blanket. His WBC increased to 16,700.

The patient became steadily more obtunded and died approximately one month after admission.

Examination of the brain showed extensive softening and increase in size of the white matter from the left frontal pole through the occipital pole, including the temporal lobe. Except for slight thinning of the cortical ribbon on this side, the cortex was otherwise, basically intact. A comparable lesion was present in the centrum ovale on the right side beginning at the frontal pole and extending posteriorly only to the level of the genu of the corpus callosum. There were hemorrhages in the midbrain and pons.

Material Provided: 1 - H & E stained section, 1 - Kodachrome of gross specimen,  $1 - 2 \times 2$  of electron microscopic findings.

Points for Discussion: (1) Diagnosis and (2) Pathogenesis.