Clinical Abstract:

This 3-day-old white male was born by spontaneous vaginal delivery after a 42-week gestation to a 29-year-old, gravida 1, para 0, white woman. The fetal membranes had been ruptured for 2 days before delivery, and the cord was wrapped around his neck. At birth he was meconium-stained and had grunting respirations with retraction. Apgar score at 1 minute was 4, and at 5 minutes was 6. Meconium aspiration with sepsis was diagnosed, and he was placed on penicillin and gentamicin. A lumbar tap revealed cerebrospinal fluid with 37 leukocytes, 50 mg. per deciliter of protein, and 2 mg. per deciliter of glucose. A seizure was treated with phenobarbital and intubation. He had widened sutures and a tense anterior fontanelle. Bilateral pneumothoraces were observed, and he was hypotensive. In spite of supportive therapy, the baby deteriorated and died at 3 days of age with recurrent pneumothoraces.

At necropsy, the infant weighed 2,530 gm. and measured 51 cm. in total length. Severe pulmonary changes included pneumothoraces, marked pulmonary hyaline membranes, and bronchopneumonia. Moderate hepatic fatty change and severe thymic involution were noted. Slight hepatic cholestasis was observed. Hypoxia was evident in the spleen and liver which showed hematopoesis and hemosiderosis. The brain weighed 410 gm. and possessed a discrete 1.5 x 1 x 0.5 cm., soft, tan mass in the right anterior caudate area with slight adjacent ventricular compression. No other gross abnormalities were observed.

MATERIAL SUBMITTED: 1 H & E slide and an unstained slide

Points for Discussion:

1. Nature of this intracerebral lesion.
2. Its pathogenesis and relationship to the cerebral cortical changes and seizures.
3. Its likely behavior.