

CASE 1995-9

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Clinical History:

The patient was delivered after cephalocentesis with resultant fetal death at 32 weeks gestational age.

The mother was a 31-year-old G3P2 who was referred for an ultrasound at 30 weeks gestation because she was large for dates. The mother had prenatal care with normal laboratories and a normal ultrasound at 7 weeks. There was no history of medical problems or of tobacco, alcohol or drug use.

Ultrasound showed a single live fetus having an intracranial midline mass measuring 6.0 x 6.5 x 7.5 cm. The mass had a solid appearance with significant blood flow. The lateral ventricles were widely dilated, presumably due to obstruction of the foramina of Munro. Eight days later the mass was estimated to be 8.8 x 7.2 cm with a sonolucent area of 2.5 x 1.9 cm. An ultrasonography-guided cephalocentesis was performed. Fetal heart activity ceased after 760 cc of bloody fluid was removed. The fetus was delivered via vacuum extraction after induced labor. The placenta was manually extracted.

Necropsy findings:

The fetus weighed 2530 gm. Body length was 49.6 cm and foot length was 6.4 cm. Head circumference was 39 cm. General autopsy showed no congenital abnormalities. There was mild cardiomegaly, mild thymic involution, marked extramedullary hematopoiesis in liver and severe placental edema.

The fresh brain weighed 720 gm. The lateral ventricles were markedly dilated. Following one week fixation in 10% formalin and one week fixation in 100% ethanol, the brain weighed 310 gm. The gyri were flattened. The region of the base of the third ventricle appeared to be expanded by an intracerebral mass. The brainstem and cerebellum were normally formed. Coronal sectioning showed a soft, solid, centrally located mass which measured 12.0 x 8.0 x 6.0 cm. The mass was tan-brown with central necrosis. Dark punctate areas suggestive of vascular congestion were seen at the edge of the necrosis. The basal ganglia and thalamus could not be recognized. The cerebral cortex was attenuated to 0.2 - 0.4 cm in thickness. The left ventricle contained a large blood clot.

Material submitted: Kodachrome of coronal section of brain
One H&E section
One unstained section

Points for discussion: 1. Diagnosis
2. Cell of origin