Choroid plexus papilloma of the third ventricle in the fetus

Case illustration

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This patient was the second child of a 28-year-old woman who had experienced an otherwise uneventful pregnancy. A fetal ultrasound obtained at 34 weeks’ gestation demonstrated no abnormal findings; however, ultrasonography at 40 weeks’ gestation revealed fetal hydrocephalus (Fig. 1). The mother was admitted to the neurosurgical department. Fetal magnetic resonance (MR) imaging indicated the presence of a tumor of the third ventricle, complicated by acute hydrocephalus (Fig. 2). At 41 weeks’ gestation, a cesarean section was performed to deliver the child.

Postnatal three-dimensional (3D) time-of-flight MR angiography revealed a round mass with indistinct margins and marked enhancement of the same site (Fig. 3). On postnatal Day 7, a right frontal craniotomy was performed without palliative surgery (shunting operation or ventricular drainage) to treat the hydrocephalus.

Postoperative Day 7 MR imaging demonstrated a subdural effusion on the surgically treated side, where the tumor had been completely resected.

Choroid plexus papilloma is a commonly occurring tumor in infants (20% occurring in infants younger than 1 year of age). The most common sites are in the lateral ventricle, the fourth ventricle, and the third ventricle (70–80, 14, and 7%,3,5 respectively). Choroid plexus papilloma of the third ventricle, however, statistically accounts for less than 0.1% of all brain tumors. Diagnosis in fetuses has been reported in only two cases;1,2 MR imaging was not performed and death occurred in both cases.

In a literature search we found no reports in which MR imaging was performed to visualize a choroid plexus papilloma of the third ventricle in the fetus.

References


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