Understanding Fetal Brain Injury In Utero

An article in the recent issue of the journal Pediatric and Developmental Pathology studied some of the placental syndromes that contribute to fetal death and neurological injury. The authors’ findings support the theory that brain injuries can originate while in the uterus before the baby is born.

Lawrence, Kansas (PRWEB) June 16, 2016 -- Pediatric and Developmental Pathology – A stillbirth occurs when a baby is born without any signs of life. Placental pathology is found to be related to the cause of death in a significant number of pregnancies that result in stillbirth. Placental factors are also frequently associated with brain injuries found in liveborn babies.

An article in the recent issue of the journal Pediatric and Developmental Pathology studied some of the placental syndromes that contribute to fetal death and neurological injury, such as fetal thrombotic vasculopathy, high-grade chronic villitis, and maternal vascular underperfusion of the placenta. Corresponding author, Linda Ernst, MD, MHS, explains that the study “shows an association between chronic placental pathology, especially processes that affect fetal blood flow, and hypoxic-ischemic brain injury in stillborn patients.”

In the study, the researchers established a link between pontosubicular necrosis and lesions found in the placenta. The team used the largest sample size of stillborn fetuses found in similar research to date. As the article’s editor explains, “with this, we learn that certain placental lesions predict neurological problems, which is important for patients surviving pregnancies in which similar placental lesions are found.”

Pontosubicular necrosis results from diminished blood flow to the brain. A decrease in the amount of blood that reaches the brain may be even more harmful than oxygen loss, since it can result in decreased oxygen, nutrients, and waste removal.

The authors’ findings support the theory that these brain injuries can originate while in the uterus before the baby is born. In cases of high-grade chronic villitis and fetal thrombotic vasculopathy, a significant neurological injury is pontosubicular necrosis. With the researchers’ findings, practitioners may be more knowledgeable when evaluating prognosis, response, and changes to therapy concerning fetal brain injury. Further studies may also help treat fetal brain injuries, especially those to the hippocampus and in the pons.


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