Perinatal Arterial Ischemic Stroke

WHAT IS A PERINATAL ARTERIAL ISCHEMIC STROKE?

Perinatal arterial ischemic stroke (PAIS) is a type of stroke that occurs in the newborn period. It is from a blood clot that travels in the arteries to the baby’s brain, or forms directly in the baby’s artery. The clot forms a plug so blood can’t get to where it needs to go. This is called an ischemic stroke. Our center works in collaboration with Children’s Hospital Colorado to offer personalized care, research and rehabilitation for babies who have experienced this type of stroke.

WHAT CAUSES THIS?

Perinatal means “around the time of birth”. In most cases, there is no obvious risk factor for the stroke. The general thought is that inflammation from the placenta and the baby’s inflammatory response may cause blood clots to form in-utero or during birth, which can travel to the baby’s brain. Other less common risk factors can include congenital heart disease or inherited problems with the blood clotting system.

WHAT TREATMENTS ARE AVAILABLE?

As the risk is thought to be limited to pregnancy, babies with PAIS do not typically require medication such as aspirin after they have a stroke. Early Intervention, a state-funded service which provides in-house therapy for babies with stroke until age 3, is important to help the brain development and retrain areas to take over for those that were injured. This phenomenon is called “plasticity.”

Some children may require physical, occupational, and/or speech-language therapy throughout their childhood. A small number of children may need extra learning help in school or therapy to help with sensory integration disturbances or behavioral issues.

Hemophilia and Thrombosis Center
UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

Affiliated with Children’s Hospital Colorado
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**WHAT SHOULD WE EXPECT FOR THE FUTURE?**

Babies who have strokes can look relatively normal their first few months after birth. As they age, they can “grow into” their stroke—where signs of their stroke become more apparent when they are developing and becoming more mobile. The stroke may affect their movement and speech.

Ongoing early intervention or clinic-based therapy is important to help prevent disability, even if the baby is doing well. The risk of stroke recurrence is low after the baby is born (under 2% over 5 years), and those strokes that do reoccur are typically in children with congenital heart disease or other clotting problems. The scarring from the stroke may also put children at a slightly higher risk of seizure beyond the general population.

**WHAT OTHER TESTS MAY BE NEEDED?**

Your doctor may recommend thrombophilia tests if there is a family history of clotting abnormalities, or an echocardiogram if there are any concerns of a heart defect.

Children in our clinic undergo standardized neuropsychological testing, which tests how they learn and process, when they are school aged. If you have any questions or concerns, please contact us. If your child is having a seizure, you should call 911 right away.

**WHAT RESOURCES ARE AVAILABLE?**

**Hemophilia & Thrombosis Center at CU Anschutz Medical Campus**

Our Clinic specializes in care for pediatric stroke including Perinatal Arterial Ischemic Stroke. Contact us at the details below or see our website here: [medschool.cuanschutz.edu/hemophilia-thrombosis](medschool.cuanschutz.edu/hemophilia-thrombosis).

**Pediatric Stroke Parent Support Group**

The Colorado Pediatric Stroke Parent Support Group provides programs that offer group support to patients and their families. Go to our website at [pedsstrokesupport.ucdenver.edu](pedsstrokesupport.ucdenver.edu) or email us at [strokesupport@ucdenver.edu](strokesupport@ucdenver.edu) for more information.

We are located in the CU Medicine Building at the Hemophilia and Thrombosis Center

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