Neonatal Hypoxic-ischemic Encephalopathy: The Benefits and Limitations of Therapeutic Cooling

Therapeutic cooling reduces death and severe disability in neonates with HIE, but many still face cognitive and motor impairments

SANTA BARBARA, CA, UNITED STATES, March 26, 2025 /EINPresswire.com/ -- “Unfortunately, nearly a quarter of children who require and receive therapeutic cooling and don’t develop cerebral palsy have cognitive impairment and minor motor impairment. There are now objective radiographic tests to diagnose the children at risk," states Greg Vigna, MD, JD, Board Certified Physical Medicine and Rehabilitation.

> Therapeutic cooling has been shown to reduce death and severe disability for the management of neonatal hypoxic-ischemic encephalopathy.”
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> *Greg Vigna, MD*

Dr. Greg Vigna, national birth injury attorney, states, “Therapeutic cooling has been shown to reduce death and severe disability for the management of neonatal hypoxic-ischemic encephalopathy, which reduces secondary brain injury caused by a multitude of biochemical events that culminate in cell death of brain tissue impacted by hypoxia.”

What does the current research say?

“Hypothermia is now standard care for neonatal hypoxic-ischaemicencephalopathy (HIE) secondary to perinatal asphyxia in high-income countries and has been shown to reduce the risk of death and severe disability compared with normothermia management.

Studies have reported that 74% to 90% of those who undergo therapeutic hypothermia survive past 18 months, and 73% to 85% of these do not have cerebral palsy (CP).

Follow-up assessment confirmed that 79% of survivors do not have CP at 6 to 7 years.

In children without CP, nearly 21% had cognitive impairments and 24% had high risk of motor impairment at 6 to 8 years.

Patients who underwent therapeutic hypothermia for neonatal Hypoxic-ischaemic Encephalopathy had lower whole-brain white-and grey-matter volumes than controls.

Cognitive and motor scores correlated with hippocampal and thalamic volumes in the patients."

Read "Brain volumes and functional outcomes in children without cerebral palsy after therapeutic hypothermia for neonatal hypoxic-ischaemic encephalopathy" published in Dev Med Child Neurol. 2023; 65:367-375: https://pubmed.ncbi.nlm.nih.gov/35907252/


Dr. Greg Vigna

Dr. Vigna states, "Whole brain volumes appear to be a sensitive indicator of hypoxic brain damage and proves there is brain damage. Reduced volumes in the hypocampal and thalamic regions prove that the brain damage caused or contributed to impairments in cognition and motor skills."

Dr. Vigna concludes, "My law firm provides case evaluations with an in-house Board Certified in Obstetrics and Gynecology to understand the events related to the birth. We represent those with cerebral palsy, autism spectrum disorder, and children with impairments in cognition and motor skills that have objective evidence of brain injury."

CLICK HERE to read Dr. Vigna's book, 'The Mother's Guide to Birth Injury'.

Dr. Vigna is a California and Washington DC lawyer who focuses on neurological injuries caused by medical negligence including birth injury. He is Board Certified in Physical Medicine and Rehabilitation. Dr. Vigna co-counsels with Ben Martin Law Group, a national pharmaceutical injury and birth injury law firm in Dallas, Texas.

To learn more, visit https://vignalawgroup.com/practice-areas/birth-injuries/.

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