

53 Newborns with Hypoxic Ischemic Encephalopathy treated with Hypothermia therapy using Neonatal Laminar Flow Unit

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Aim: The aim this trial was observational clinical the newborns with diagnosis of Hypoxic Ischemic Encephalopathy treated with hypothermia therapy in use of the Neonatal Laminar flow unit¹.

Methods: We involved 53 newborns in this trial, all born in the hospital itself, newborns at up to 35 weeks of gestation, with up to 6 hours of life. Total body cooling was achieved using the neonatal laminar flow unit for 72 hours, with continuous rectal temperature servo control, isolation and humidification. Outcome measures were cerebral palsy, a Bayley II Mental Development Index score <70, hearing loss or blindness. We compared findings with our previously published studies² and two meta-analyses^{3,4}.

Results: We included 53 newborn infants (73% male) with a birthweight of 3.562± 1548 g and gestational age of 38 ±3.4 weeks. We have

used to categorize the diagnosis of the Hypoxic Ischemic Encephalopathy, the Siben Neurologic Score 5 associated the Sarnat Score⁶; the most of the newborns(73%) had Siben's score three points or more to serious HIE confirmed by Sarnat Score and 27% had Siben's score three points or more to moderate HIE confirmed by Sarnat Score.

Total body cooling (33–34°C) was achieved in 75 minutes and maintained with servo control. At 18–24 months of age, five of the 38 survivors were diagnosed with cerebral palsy, two was diagnosed with blindness and one with impaired hearing.

Conclusion: The use of the Neonatal laminar flow unit to supply total body hypothermia therapy in newborns with HIE was effective and our results were similar our previously trial and two meta-analyses.

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