B3

Short Term Outcome of Early Medical Intervention in Hypoxic Ischemic Encephalopathy

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Introduction: Perinatal Asphyxia is a common cause of neonatal mortality & morbidity. It causes cerebral palsy with morbidity of impairment of higher functions like hearing, visual & learning disabilities, epilepsy and motor impairment. Early intervention consists of multidisciplinary interventions right from birth targeted at babies who are at risk of developmental delay. Periodic developmental assessment of their motor, cognitive, language & adaptive functioning improves the outcome.

Aims & Objectives: To study short term outcome of early medical intervention in hypoxic ischemic encephalopathy.

Materials & methods: All births were attended by pediatric residents & resuscitated as per NRP protocol (2019). All asphyxiated babies were included after informed parental consent.

Inclusion criteria:
1.Term newborns >37weeks of gestation
2.APGAR ≤3 at ≥ 10 min and clinical signs of asphyxia

Exclusion criteria: Neonates with signs of sepsis, congenital malformations and suspicion of metabolic disorders. Modified Sarnat&Sarnat score was used for grading. All neonate were kept nil per oral for 48 hours and given medical intervention like modified indigenous cranial cooling (Therapeutic hypothermia) using vaccine ice packs, normal saline bolus followed by restricted IV fluids, calcium supplementation, N- acetyl-cystine, phenobarbitone, topiramate. Rewarming and feeds initiated on day 3 and anticonvulsants were stopped.

Results: During the period of study, out of 56 cases, 38 were HIE I which were managed successfully with our medical management and discharged. 7 cases of HIE II and 11 cases of HIE III required additional management. 6 cases of HIE III required mechanical ventilation. 18 neonates required ionotropic support. Overall mortality was 12.5%. 5 cases of HIE III were discharged on continuous anti-epileptic drug.

Conclusions: Early medical Intervention therapy showed good short term outcomes in our study. EI and physiotherapy maybe continued till at least 3 to 5 years of age for its further improvement and neurodevelopmental status needs to be serially assessed to measure long term outcomes.

Keywords: Hypoxic Ischemic Encephalopathy. Early Intervention, Neonatal Resuscitation Programme.