

Abstract from Current Literature

Short-term Outcome and Predictors of Survival Among Neonates with Moderate or Severe Hypoxic Ischemic Encephalopathy: Data from the Indian Neonatal Collaborative

Chanchal Kumar, Guruprasad Peruri, Nishad Plakkal, Tejo Pratap Oleti, Abhishek Somasekhara Aradhya, Baswaraj Tandur, Deepak Chawla, Suman Rao, Mangalabharathi Sundaram, Nandkishor S Kabra, Ashish A Mehta, Sandeep Kadam, Bijan Saha, Srinivas Murki, Praveen Kumar

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Background: Among term and late preterm infants, hypoxic ischemic encephalopathy (HIE) is an important cause of mortality, and neurologic morbidity among survivors.

Objective: The primary objective was to study the incidence of survival to discharge among late preterm and term infants with moderate or severe HIE. Secondary objectives were to explore variation in the management of HIE across participating sites and to identify the predictors of survival.

Material & Methods: *Setting:* Indian Neonatal Collaborative (INNC), a network of 28 neonatal units in India.

Study design: Retrospective cohort.

Participants: Late preterm (34-36 weeks) and term (37-42 weeks) infants with moderate to severe HIE from 2018-2019.

Outcome: The primary outcome was survival to discharge (including discharged home and transfer to other hospital). A multivariate logistic regression model was constructed to identify the predictors of survival.

Results: Of 352 infants with moderate or severe HIE, 59% received therapeutic hypothermia. Survival to discharge among infants with moderate or severe HIE was 82%. Severe HIE (aOR 0.04; 95% CI 0.02-0.10), persistent pulmonary hypertension (PPHN) (aOR 0.22; 95% CI 0.08-0.61) and requirement of epinephrine during resuscitation (aOR 0.21; 95% CI 0.05-0.84) were independently associated with decreased odds of survival to discharge.

Conclusion: Survival to discharge among infants with moderate or severe HIE was 82%. Severe HIE, requirement of epinephrine during resuscitation and PPHN decreased the odds of survival.

Keywords: Asphyxia, Hypothermia, Management, Outcome

Epidemiology and demographics of juvenile idiopathic arthritis in Africa and Middle East

Sulaiman M. Al-Mayouf, Muna Al Mutairi, Kenza Bouayed, Sara Habjoka, Djohra Hadeif, Hala M. Lotfy, Cristiaan Scott, Elsadeg M. Sharif, Nouran Tahoun

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Juvenile Idiopathic Arthritis (JIA) is a group of chronic heterogeneous disorders that manifests as joint inflammation in patients aged <16 years. Globally, approximately 3 million children and young adults are suffering from JIA with prevalence rates consistently higher in girls. The region of Africa and Middle East constitute a diverse group of ethnicities, socioeconomic conditions, and climates which influence the prevalence of JIA. There are only a few studies published on epidemiology of JIA in the region. There is an evident paucity of adequate and latest data from the region. This review summarizes the available data on the prevalence of JIA and its subtypes in Africa and Middle East and discusses unmet needs for patients in this region.

A total of 8 journal publications were identified concerning epidemiology and 42 articles describing JIA subtypes from Africa and Middle East were included. The prevalence of JIA in Africa and Middle East was observed to be towards the lower range of the global estimate. We observed that the most prevalent subtype in the region was oligoarticular arthritis. The incidence of uveitis and anti-nuclear antibody (ANA) positivity were found to be lower as compared to the incidence from other regions.

There is a huge unmet medical need in the region for reliable epidemiological data, disease awareness, having regional and local treatment guidelines and timely diagnosis. Paucity of the pediatric rheumatologists and economic disparities also contribute to the challenges regarding the management of JIA

Impact of oral corticosteroids on respiratory outcomes in acute preschool wheeze: a randomized clinical trial

Alexandra Wallace, Owen Sinclair, Michael Shepherd, Jocelyn Neutze, Adrian Trenholme, Eunicia Tan, Christine Brabyn, Megan Bonisch, Naomi Grey, David W Johnson, David McNamara, John M D Thompson, Innes Asher, Stuart R Dalziel

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Objective: To determine if administration of oral prednisolone to preschool children with acute wheeze alters respiratory outcomes. Design Double-blind, randomized, placebo-controlled equivalence trial.

Methods: Setting Three hospitals in New Zealand. Patients 477 children aged 24-59 months with acute wheeze associated with respiratory illness. Interventions 2 mg/kg (maximum 40 mg) oral prednisolone or similar placebo, once daily for 3 days. Main outcome measures Primary outcome was change in Preschool Respiratory Assessment

Measure (PRAM) score 24 hours after intervention. Secondary outcomes included PRAM score at 4 hours, length of emergency department and inpatient stays, admission and representation rates, time to return to normal activities and use of additional oral prednisolone or intravenous medications. Analysis was by intention-to-treat.

Results: There was no difference between groups for change in PRAM score at 24 hours (difference between means -0.39, 95% CI -0.84 to 0.06, $p=0.09$). Absolute PRAM score was lower in the prednisolone group at 4 hours (median (IQR) 1 (0-2) vs 2 (0-3), $p=0.01$) and 24 hours (0 (0-1) vs 0 (0-1), $p=0.01$), when symptoms had resolved for most children regardless of initial treatment. Admission rate, requirement for additional oral prednisolone and use of intravenous medication were lower in the prednisolone group, although there were no differences between groups for time taken to return to normal activities or rates of representation within 7 days.

Conclusion: Oral prednisolone does not alter respiratory outcomes at 24 hours or beyond in preschool children presenting with acute wheeze.