Antenatal Exposure to Magnesium Sulphate and Neonatal Outcomes in Very Low Birth Weight Infants: a multicenter study.

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Abstract

Objective: To explore the association between antenatal magnesium sulphate (MgSO4), mortality and incidence of intraventricular hemorrhage (IVH) in very low birth weight (VLBW) infants. Study design: Retrospective, cohort study of infants < 32 weeks’ GA born at centers of NEOCOSUR Network between January 2015 and December 2020. Subjects were categorized as exposed vs non-exposed to antenatal MgSO4. Primary outcomes were death, incidence of severe IVH (Grade III-IV) and severe IVH/death. Secondary outcomes included relevant morbidities. Results: 7418 VLBW infants were eligible. Antenatal MgSO4 was associated with a significantly decreased death rate after admission (aOR 0.59 [95% CI, 0.46–0.74]) and severe IVH/death (aOR 0.63 [95% CI, 0.49–0.83]). No significant reduction in severe IVH was observed (aOR 0.89 [95% CI, 0.63–1.25]). No differences between groups were observed in rates of morbidities. Conclusion: Antenatal MgSO4 was associated with a decreased death rate after admission and in severe IVH/death.

Keywords

Antenatal Magnesium Sulphate, Very Low Birth Weight Infants, Intraventricular Hemorrhage, Mortality