

The Evaluation of Cord Blood Magnesium Level in Neonates of Magnesium Sulphate Treated Pre-eclamptic/eclamptic Mothers and its Clinical Correlation

Lalit Kumar, Om Shankar Chaurasiya, Gunjan Jain, *D. Nath, **Hema J. Shobhne

Department of Pediatrics, *Department of Pathology, **Department of Obstetric & Gynaecology, M.L.B. Medical College, Jhansi

Abstract:

This case control study was carried out on 35 neonates born to pre- eclamptic/eclamptic mothers treated with magnesium sulphate and 35 neonates born to normal healthy mothers. Cases and controls were selected by inclusion/exclusion criteria irrespective of body weight and maturity of the babies. Magnesium sulphate administered to mother in study group was according to Pritchard's intramuscular regime (1984). The cord blood samples were collected just after birth in both study and control group and magnesium level was estimated by calorimetric method. Magnesium level was found to be significantly higher in study group (6.0305 ± 0.08047) than controls (1.916 ± 0.300 ; $p = 0.0001$). There was a significant difference in Apgar scores of study and control group. A negative weak linear correlation was found between cord blood magnesium level and different neonatal parameter like apgar score, birth weight and gestational age. A weak positive linear correlation was found between magnesium level and neonatal mortality which was also not significant.