A STUDY ON CORRELATION OF CORD BLOOD BILIRUBIN & NEONATAL HYPERBILIRUBINEMIA IN THE SETTING OF ABO INCOMPATIBILITY

ABSTRACT

Context:

The problem of readmission of neonates for jaundice, following early discharge is common in ABO incompatibility. To better manage this scenario cord blood bilirubin values would be a good predictor of neonatal hyperbilirubinemia and in preventing Kernicterus.

Aim

To assess correlation between cord blood bilirubin and neonatal hyperbilirubinemia in ABO incompatibility and to evaluate its predictive ability.

Type : prospective observational cohort study

Setting : NICU, GMKMCH, Salem.

Participants: 820 term healthy neonates with ABO incompatibility in One Year.

Methodology:

Bilirubin levels were estimated for cord blood and 24,48,72 hrs venous sample. Correlation between these values and hyperbilirubinemia was analysed. Also the relationship between sex, birth weight and neonatal hyperbilirubinemia were analysed.

Results
Cord blood cutoff values < 2.1 mg/dl had a strong correlation with a sensitivity of 85.11% and negative predictive value of 97.38%. Likewise, 24 hour bilirubin values < 4 mg/dl had a sensitivity of 89.36% and 98.04% negative predictive value showing that both were good predictors of neonatal hyperbilirubinemia. There was no correlation between sex, birth weight and hyperbilirubinemia.

**Conclusion**

Cord blood bilirubin and 24 hr bilirubin levels can be used as good predictors of hyperbilirubinemia thereby ensuring safe early discharge or early judicious review for jaundice, especially in developing countries where regular follow up is difficult.

**Keywords:** neonatal hyperbilirubinemia, cord blood bilirubin, 24 hrs bilirubin, predictive ability, negative predictive value.