metabolite) and pulmonary morbidities in early neonatal period in premature infants.

Method This study was conducted in Hacettepe University Children’s Hospital Neonatology Unit. Cord blood samples were obtained at birth from premature infants (gestational age < 37 wk) and theophylline levels were measured. Cord blood theophylline levels of infants with and without respiratory morbidities were compared.

Results A total of 60 infants were enrolled in the study. Early respiratory morbidities developed in 37 infants (Group 1, 61.6%) while no respiratory morbidities were observed in 23 infants (Group 2, 38.3%). Although mean cord blood theophylline levels were lower in Group 1 (0.21±0.18 µg/ml) than Group 2 (0.33±0.29 µg/ml), this difference was not statistically significant (p=0.186).

Conclusion Preterm infants with and without respiratory morbidities have similar cord blood theophylline levels. Prenatal exposure to theophylline does not seem to affect respiratory status in the early neonatal period. However, cord blood theophylline levels were much lower than therapeutic serum levels in neonates. The effects of prenatal caffeine on neonatal respiratory status should be investigated in animal models.

Methodology

Results Out of 100 cases in study group 53(53%) developed hyperbilirubinemia whereas only one (3.3%) out of 30 cases in control group developed hyperbilirubinemia. Majority of cases with hyperbilirubinemia i.e. 20 (60.6%) out of 33 cases, had cord bilirubin values between 2.5 to 2.99 mg/dl. Mean cord bilirubin values were significantly higher (2.27±0.76) in study group as compared to control group (1.55±0.33).

Conclusion It is concluded that in ABO incompatibility the cord bilirubin value ≥ 2.5 mg/dl can serve as a useful cutoff limit for the later development of hyperbilirubinemia.

Methodology

Results No infant received exchange transfusion. When the levels were plotted on standard guideline charts, there were 8 infants who should have received exchange transfusion based on birth weight and 16 infants who should have received exchange transfusion based on gestation.

Methodology

Results 124 patients who were examined for the first time for ROP were included (70 in intervention and 54 in control groups). Prior to examination, mean NIPS scores were 0.8±0.9 and 1.2±1.2 (P=0.100) in newborns of intervention and control groups respectively, and after examination mean NIPS scores were 2.6±1.1 and 4.5±1.3 (P<0.001) in intervention and control groups respectively. The number of patients with pain prior the eye examination was one (1.4%) and 2 (5.7%) in intervention and control groups (P=0.580) respectively. After eye examination 11 patients with pain (NIPS≥4) in intervention group (15.7%) and 37 patients with pain (68.5%) in control group (P<0.001).

Conclusions One ml of oral 25% glucose solution given 2 minutes before the ophthalmologic examination for ROP is an effective measure for pain relief. (clinicaltrials.gov. NCT00648687).

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Preterm infants weighing less than 1500 g routinely undergo a series of eye examinations to screen for retinopathy of prematurity (ROP). Mydriatic eye drops used for pupil dilatation while these examinations may be absorbed by nasopharyngeal mucosa and gastrointestinal system that may cause neurological and gastrointestinal side effects rarely. We aimed to evaluate the effect of mydriatic eye drops on cerebral and mesenteric tissue oxygenation and gastrointestinal system that may cause neurological and gastrointestinal side effects rarely. We aimed to evaluate the effect of mydriatic eye drops on cerebral and mesenteric tissue oxygenation.