

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=0.156).

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.

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EPIDEMIOLOGICAL AND CHRONOLOGICAL PROFILE OF THE LOW BIRTH WEIGHT IN THE REGION OF MONASTIR (TUNISIA) BETWEEN 1995 AND 2008

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In Tunisia, despite the activities of national programs of maternal and child health, low birth weight (LBW) remains common. The aim of this study is to draw up the epidemiological profile of the LBW in the region of Monastir and to study the chronological trends of the associated factors during a period of 14 years (1995–2008). We conducted a population study which interest 97.630 live births (from 26 to 43 weeks) in the public maternities of the region of Monastir. The mean's age of pregnant women was 28.7±5.5 years. Among them 14.2% were aged 35 and older and 40% were primipara. Newborns were in term in 94.7% of cases. Maternal age, prenatal care, twin pregnancies and fetal complications were the factors independently associated with the occurrence of LBW in term newborns. However, only prenatal care and twin pregnancies were independently associated to LBW in preterm newborns. During the fourteenth years of the study the parturient mean age and the frequency of preterm birth increased significantly (P<0.001) while the frequency of multiparty decreased significantly (P<0.001). We found that the risk factors of LBW (advanced age, multiparty, etc.) are still common in our country and require targeted interventions.

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A RANDOMIZED CLINICAL TRIAL OF THE USE OF ORAL GLUCOSE FOR PAIN RELIEF DURING RETINOPATHY OF PREMATURITY EXAMINATION (ROP)

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Background Ophthalmologic examination for ROP is a painful procedure. Pharmacological and non-pharmacological interventions have been proposed in order to reduce pain during eye examination.

Purpose To evaluate the use of oral 25% glucose solution to relief pain during ophthalmologic examinations for ROP.

Methods A masked randomized clinical trial with the use of 1 ml of oral 25% glucose solution once 2 minutes before the first

ophthalmologic examination was carried out from March 2008 to April 2010 comparing with a control group that did not receive oral glucose solution. Pain was evaluated by Neonatal Infant Pain Scale (NIPS) immediately before and immediately after the ophthalmologic examination in both groups.

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±0.8 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 (3.7%) 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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PREDICTIVE VALUE OF UMBILICAL CORD BLOOD BILIRUBIN LEVEL FOR SUBSEQUENT HYPERBILIRUBINEMIA IN ABO INCOMPATIBILITY

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Objectives To establish a correlation between umbilical cord blood bilirubin levels and the development of subsequent hyperbilirubinemia in healthy term newborn ABO incompatible infants of blood group "O" mothers.

Subject & methods One hundred consecutive healthy full term offsprings of ABO incompatible pregnancies and 30 controls resulting from O-O pregnancies were studied. Blood group and serum bilirubin estimations were carried out on cord blood and bilirubin estimation was further done at 36 hours of life.

Results Out of 100 cases in study group 33(33%) 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±U 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.

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ARE WE UNDERTREATING HYPERBILIRUBINEMIA IN PRETERM INFANTS?

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Aim To compare serum bilirubin level for exchange transfusion in pre-term infants (< 32 weeks) against standard guidelines.

Methodology Retrospective audit. Preterm infants (< 32 weeks) and Birth weight < 1500 gms included. Data collected through Clinical Work Station. Bilirubin levels plotted on the charts used on our neonatal unit and compared against standard charts. (from Robertson's textbook of Neonatology).

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.