

Resuscitation Training Program (NRP) on the prevalence neonatal hypothermia in Hasan Sadikin general hospital Bandung.

Methods: This was cross sectional study. The subjects were infant born in Hasan Sadikin hospital in January – February 2002. The axilla temperature were measured 10 minutes after delivery, body weight was measured by digital baby weighing and Dubowitz and Ballard score were used to estimate gestation age. The data was analyzed using chi-square test.

Results: From two hundred and four (204) newborn who delivered in Hasan Sadikin Hospital, only 112 newborn that were compared because babies delivered by cesarean section were excluded. Forty babies (35,4%) delivered by doctor who had NRP, 73 babies (64,6 %) delivered by doctors non NRP. Hypothermia babies whom were delivered by NRP 11 (35,5%) and by non NRP 20 (64,5%).

Conclusions: Low birth weight, prematurity, asphyxia tend to be the characteristic of hypothermia babies and the Neonatal Resuscitation Training Program give no impact hospital neonatal hypothermia in Hasan Sadikin General Hospital Bandung.

## FCO15

### CORD BLOOD IGF-1 AND IGFBP-3 LEVELS IN ASPHYXIATED NEWBORNS

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Objective: Determination and pathogenesis of perinatal asphyxia is still an important problem in NICU. Aim of this study was to evaluate relationship between serum IGF-1, IGFBP-3 levels and perinatal asphyxia.

Patients and Methods: Perinatal asphyxia was evaluated by means of APGAR scores in 1 and 5 minutes and umbilical cord artery gas analysis as pH, PO<sub>2</sub>, PCO<sub>2</sub>, HCO<sub>3</sub>, ABE and lactate. According to these criteria 12 term-newborn infants were defined as asphyxiated and 11 newborns as normal. Umbilical cord blood IGF-1 and IGFBP-3 levels were detected and searched for correlation with Apgar scores and blood gas parameters.

Results: Serum IGF-1 levels were lower in asphyxiated group than control subjects (27.2± 26.1, 60.5 ±28.2, p<0.01). Serum IGFBP-3 levels were also lower in asphyxiated group (1107.7±320.4, 1682.5±364.1, p<0.001). We demonstrated positive correlation between serum IGFBP-3 and Apgar scores (1 and 5 minute), pH, PCO<sub>2</sub>, ABE, HCO<sub>3</sub>, SO<sub>2</sub>, ctO<sub>2</sub>, and cord blood lactate levels. Cord blood IGF-1 levels were correlated with Apgar score at 1 minute, birth weight, and cord blood pH and HCO<sub>3</sub> levels. Cord blood IGF-1 levels were correlated with birth weight and cord blood IGFBP-3 levels were correlated with cord blood HCO<sub>3</sub> and ctO<sub>2</sub> with stepwise regression analysis.

Conclusion: Umbilical cord IGF-1 and IGFBP-3 levels decreased in asphyxiated newborns like in experimental studies. Correlation was found between IGF-1, IGFBP-3 levels and blood gas parameters. Because IGF-1 has neuroprotective effect in experimental models of hypoxia and ischemia, serum IGF-1 and IGFBP-3 levels can be used for determination of asphyxia and may have possible protective effects when used as therapeutic agents.

## FCO16

### OPTIMIZATION OF THE DIAGNOSIS AND TREATMENT OF CEREBRAL DISORDERS IN NEWBORNS

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Newly born children, at the age 23-28 weeks are under a high risk of mortality and disablement. The difficulties of a final diagnosis of such cases are connected to diversity of CNS dysfunctions, the generalization of cerebral reactions, the dynamism of the process, and the changes of symptoms within several hours with the additional stress of the childbirth period.

120 newborns (age 1- 30 day) were investigated, together with a clinical investigation we used neuro-

sonography, EEG, and in several cases cerebral MRI and an investigation of spinal liquor. All the neurological syndromes were classified according to the severity of the damage and the age of the patients. All patients were receiving the medicament Plaferon (Locally Produced) together with the symptomatic treatment. The results were remarkable: all the patients that were treated with the plaferon during the first 4-6 days adapted easier to the first afterbirth stress. There was observed a decrease of brain swelling and hypoxia, and there was an accelerated process of the mielinization. Also observed was an "awakening" effect of this medicament. The plaferon recommended itself as an anti hypoxic, anti toxic, immune corrective treatment. The plaferon - type of interferon produced with viral induction by amniotic cells of human placenta- helps to create a positive influence for the newborns with trauma to adapt easier to their new environment.

## FCO17

### THE SURVERY OF NICU INFECTIONS AT CHILDREN GENERAL HOSPITAL

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**Objectives:** This study was done to evaluate the prevalence and major risk factors of neonatal septicemia and to identify the most common etiologic agents in our referral hospital.

**Methods:** In this retrospective study, 189 infants who were admitted with the symptoms of neonatal septicemia since 23 September 2000 up to 22 September 2001 to the neonatal ward of Tabriz Children General Hospital were studied. And all the information concerning the objectives of the project like the infant's age, birth weight, gestational age, sex and blood culture results and the patient health situation at the time of hospital discharge were evaluated. Finally, the results of our study were compared with the results of similar studies were performed in other foreign or native universities.

**Results:** From 189 infants who were admitted with the symptoms of neonatal septicemia, just in 61 infants the clinical features of neonatal septicemia were confirmed with positive blood culture results. From 61 infants, 36% were term infants and 64% were preterm infants and there was an obvious increased affection to early onset septicemia by preterm infants. The most common etiologic agent of neonatal sepsis was the coagulase negative staphylococci. And gram-negative enteric bacilli were the second most common etiologic agents.

**Conclusion:** Prematurity was the most important predisposing factor for affection and mortality. In spite of the results of western studies that present group A streptococci as the most common pathogenic agent, there were no evidences of affection by this microorganism in our study.

## FCO18

### MATERNAL MORTALITY RATE IN FOUR-YEARS PERIOD

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**Background:** Perinatal and maternal mortality are indicators of the quality of antenatal and perinatal care and such depend upon numerous factors. The economic status of the society is reflected directly upon the development of the health protection system, whose one of most precise indicators is maternal mortality. Aim of this study is to analyse rate and causes of maternal mortality in four-years period.

**Methods:** In retrospective study we analyzed completed pregnancies and maternal deaths in four-years period at OB/GYN Clinic in Tuzla with the particular review to causes of maternal deaths.

**Results:** In four years period at Clinic for Obstetrics and Gynaecology we were 19672 completed pregnancies. Out of 19672 deliveries we had 6 women wich died in pregnancy and delivery by rate of 30 death per 100 000 deliveries. Analyzed causes of death we have concluded that the most frequent causes of maternal death are eclampsia. Out of six maternal deaths, five mothers died by eclampsia and one by