

this study were to analyse the clinical impact of morbidities and to identify predictors of in-hospital mortality in preterm infants with low birth weight.

**Methods** Between January-2011 and November-2012 were included 81 preterm infants at our centre with low birth weight or  $\leq 32$  weeks gestation. Perinatal variables were included in risk factor analysis. Data are expressed as gestational age (GA)  $<28$  or between 28–32 weeks and birth weight defined as: low  $<2500$  grams, very low 1000–1500 grams and extremely  $<1000$  g. Results: The mean GA was  $29 \pm 2$  (23–32 weeks) and mean birth weight was  $1230.8 \pm 368$  (510–2000 g). The neonatal mortality rate was 17.3%. Preterm infants who died had lower birth weight than were alive,  $797 \pm 249$  vs.  $1332 \pm 315$ ,  $p < 0,001$ . The overall incidence of respiratory distress syndrome was 86.3%, septicaemia 24.7%, neurological damage 18.5% and necrotizing enterocolitis was 7.4%. The SNAP II, SNAPPE II and CRIB II scores showed a high discriminatory power for predicting hospital mortality, ROC area 0.863, 0.925 and 0.925,  $p < 0.001$ , respectively. Multivariate analysis of predictors of in-hospital mortality were necrotizing enterocolitis, risk scores, low 5-min Apgar score, inotropic support, and protectors were: the absence of intraventricular haemorrhage, cardiopulmonary resuscitation and increased GA.

**Conclusion** The survival in preterm infants in addition of GA or birth weight, it depends on the presence of morbidities. The use of risk scores on admission is useful for prediction in-hospital mortality.

#### PO-0640 CLINICAL IMPACT OF MATERNAL CHARACTERISTICS IN PRETERM INFANTS WITH LOW BIRTH WEIGHT

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Maternal risk factors can cause prematurity. The aim of our study was to analyse the impact of maternal characteristics in preterm low birth weight.

**Methods** A retrospective cohort study of a total of 81 preterm infants at our centre with low birth weight and  $\leq 32$  weeks of gestation was performed. We analysed perinatal risk factors. Data are expressed as a function of gestational age (GA)  $<28$  or between 28–32 weeks and birth weight defined as: extremely  $<1000$  g, very low 1001–1500 g and low weight 1501–2000 g.

**Results** The mean maternal age was  $30.3 \pm 5.8$  years. There were no statistically significant differences when comparing maternal age in according to birth weight ( $29.2 \pm 5.7$  vs.  $31.5 \pm 6.6$  vs.  $30.2 \pm 4.6$ ,  $p = 0.460$  respectively) or gestational age ( $30.4 \pm 5$  vs.  $30.3 \pm 6$ ,  $p = 0.964$ ). The presence of maternal risk factors was very low: 3.7% were smokers, 2.5% had obesity. There were preeclampsia and diabetes gestational in 5 and 3 cases, respectively. Chorioamnionitis was diagnosed in 13.6% of pregnancies and 71.3% received antenatal steroids. The pregnancy was twins in 29.6% of cases. No significant differences were found when perinatal characteristics were examined in terms of birth weight, except for gestational diabetes (0% vs. 0% vs. 13.6% in low birth,  $p = 0,016$ ). Maternal age did not influence in neonatal mortality ( $30.2 \pm 5$  years in preterm infants living vs.  $30.7 \pm 6$  years in those died,  $p = 0.784$ ).

**Conclusions** In our series, the presence of maternal risk factors was very low. We were not found significant differences in according to birth weight or impact on neonatal mortality.

#### PO-0641 PAEDIATRIC SUBGLOTTIC CYSTS : RISK FACTORS AND PREVENTION – CASE CONTROL STUDY

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**Background** Subglottic cysts (SGCs) are a rare, but important cause of stridor in children. They can cause significant upper airway obstruction, with potentially lethal consequences, particularly when exacerbated by upper respiratory tract infection. Although seen typically in pre-term infants, there is a paucity of literature regarding their aetiology.

**Aim** To examine the background characteristics and to determine any risk factors in paediatric patients with SGCs.

**Methods** A retrospective case control study was conducted, reviewing reports of all laryngotracheobronchoscopies (LTB) conducted in a tertiary paediatric hospital, between January 2009 and 2014. SGCs were identified in 15 patients from the 1095 LTBs performed. Cases were matched to controls based on gestational age at birth, birth weight and age. Medical records of cases and controls were reviewed to identify possible risk factors.

**Results** Of the 15 patients with SGCs, 14 were born prematurely. All of the patients with SGCs had been ventilated, and 13 of the 15 controls were ventilated. Overall time of ventilation and frequency of re-intubations were similar between the two groups, however SGCs patients had significantly higher frequency of ETT suctioning conducted during period of ventilation.

**Conclusion** This study demonstrated an association of SGCs in the pre-term infants with previous intubation. SGCs were more prevalent in infants that required more frequent suctioning. Consequently it is likely that infants with repeated or multiple manipulations of the airway may be at higher risk for developing SGCs and should be followed up closely to avoid potential life threatening complications.

#### PO-0642 NEURODEVELOPMENTAL OUTCOMES OF VLBW CHILDREN AT 6–8 YEARS OF AGE

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**Background** There is growing awareness that the majority of nondisabled survivors encounter more “subtle” problems such as academic under achievement, behavioural problems, and deficits in executive functions.

**Objective** To compare gross motor function, cognitive function, academic competence and behavioural problems at school age between VLBW children and controls.

**Methods** We enrolled children aged 6-to 8-year-old, who were born with BW  $\leq 1,500$  g and have been followed-up at our long-term, follow-up clinic. They were tested for cognitive function and academic achievement using Wechsler Intelligence Scale for Children-III (WISC-III) and Wide Range Achievement Test (WRAT). Child Behaviour Checklist for emotional/behavioural assessment was completed by the care givers. Gross motor function was assessed using Gross Motor Function Classification System (GMFCS).