

ISP-10-6 Perinatal outcomes of fetal growth restriction between late preterm and term birth infants

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Objective : To investigate the perinatal outcomes fetal growth restriction between late preterm and term birth and to evaluate the magnitude of increase risk associated with late preterm than term birth infants.

Method : A retrospective cohort study of births at our hospital over the 5 years was reviewed. All liveborn singleton infants between 34 and 42 weeks of gestation were enrolled and were divided four groups as late preterm small for gestational age (SGA), late preterm adequate for gestational age (AGA) term SGA and term AGA, each other. The prenatal ultrasonographic findings between SGA and AGA in late preterm birth were assessed. Maternal and neonatal complications were compared with SGA and AGA between late preterm and term birth infants. The statistical analyses for frequencies and relative risks in each group were calculated by SPSS (ver.19.0).

Results : 1. In categories of AFI, AC, doppler of Umbilical artery, significant differences were noted in between SGA and AGA.

2. PIH, PROM, Oligohydramnios, antepartum bleeding, uterine myoma, internal medical complications occurred significantly more in a group of late preterm birth than a group of term birth. PIH and Oligohydramnios showed statistical significant differences in between late preterm birth and term birth, which was especially related with fetal growth.

3. Jaundice, RDS, NEC, Sepsis, congenital anomaly, hypoglycemia, GMH occurred significantly more in a group of late preterm birth than a group of term birth. Especially, congenital anomaly and hypoglycemia showed statistical significant differences in between late preterm SGA and term AGA.

Conclusions : Not adequate prenatal evaluation and obstetrical decision-making but long-term evaluation are needed to improve perinatal outcomes of growth restricted infants in late preterm birth.

ISP-10-7 The Correlation Between The Characteristics of Pregnant Women with Low Birth Weight Babies at Immanuel Hospital, Bandung, Indonesia

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Introduction : Low birthweight has been defined by WHO as weight at birth of less than 2500 grams (5.5 pounds). Low birth weight at birth is either the result of preterm birth (before 37 weeks of gestation) or due to restricted foetal (intrauterine) growth. Low birth weight is closely associated with foetal and neonatal mortality and morbidity. More than 20 million of infants worldwide of all births are born with low birth weight, 95.6% of them in developing countries. In Indonesia, it is estimated that around 400,000-900,000 low birth weight babies are delivered each year. In 2004, at Immanuel Hospital there were 13.37% low birth weight babies from the total birth. There are several influencing factors to low birth weight babies prevalence, one of them is the characteristics of the pregnant mother such as maternal age, parity, inter-pregnancy interval, antenatal care, and the mother's medical history. The aim of the study was to find out the correlation between the characteristics of pregnant mother and low birth weight babies prevalence.

Methods : The observational analytic descriptive method had been done with case-control approach to 112 low birth weight babies as "cases" and an equal number of babies of normal birth weight as "control" at Immanuel Hospital, Bandung, Indonesia. The independent variable are maternal age, parity, inter-pregnancy interval, antenatal care, and mother's medical history while the dependent variable is low birth weight babies. Statistical analysis used was Chi-square test ($\alpha=0.05$).

Results : The LBW prevalence was 7.62%. On bivariate analyses the maternal factors significantly associated with low birth weight were maternal age ≥ 35 (OR=5), primipara (OR=1.88), grandmultipara (OR=12.82), inter-pregnancy interval < 2 years (OR=2.64), and ANC $< 4x$ (OR=5.30).

Conclusions : The characteristics of the pregnant mother based on maternal age ≥ 35 years old, primipara, grandmultipara, interval pregnancies < 2 years, and ANC $< 4x$ are significantly risk factors for LBW.

Keywords : low birth weight babies, the characteristics of pregnant mother

ISP-10-8 Cervical length and gray-scale histogram in prediction of preterm birth in patients with spontaneous preterm labor

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Objective : The aim of this study was to determine the predictive value of gray-scale histogram and length of the uterine cervix for preterm birth.

Methods : Sixty-two patients with spontaneous preterm labor at 20-34 weeks of gestation were enrolled in this prospective study. A transvaginal ultrasonography for measurement of a gray-scale histogram and length of the cervix was performed on admission. Preterm births at < 37 weeks gestation were recorded.

Results : Twenty-four patients (38.7%) were delivered preterm. The value of gray-scale histogram of the uterine cervix between preterm birth and full-term birth group showed a significant difference (anterior lip : 71.4 vs. 80.7 ; posterior lip : 99.0 vs. 116.6). And cervical length also showed a significant difference (18.5mm vs. 25.3mm). The cut-off values for the prediction of preterm birth were 116.1 (posterior lip histogram) and 18.0mm (cervical length).

Conclusion : Cervical length and gray-scale histogram predicts preterm birth in patients with spontaneous preterm labor.