Univariate analysis showed that gestation ($p < 0.001$), birthweight ($p < 0.001$) and rate of weight gain ($p = 0.001$) inversely correlated with grade of ROP, but with multiple regression only gestation remained significant ($p < 0.001$). Rate of weight gain correlated with gestation; this may explain findings in previous studies.

Conclusions: Screening only babies with a growth rate below the 1st quartile would have missed 54% babies with grade 3 ROP.

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NEUROCOGNITIVE OUTCOME OF BIRTH AT 23 WEEKS GESTATION

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Background and Aims: Birth at 23 weeks gestation is at the threshold of viability and associated with high mortality and morbidity rates. Survivors are predicted to have moderate-to-severe neurodevelopmental impairments but these have not been well-described. Our aim was to describe cognitive and behavioral outcomes at early school age in these at-risk children.

Methods: We assessed 5 males at age 6 who were born at our hospital 2000-2003 at 23 weeks (birth weights: 482-660 g). Standardized neuropsychological and parental report measures were administered, and scores corrected for prematurity.

Results: Survival-to-discharge rate was 56% for 23 weekers born 2000-2003 at our NICU. Compared to normative data, our participants' mean Differential Ability Scales-II General Conceptual Ability was 89 ± 7.59 (range 81-100); composite scores were Verbal= 94.8 ± 12.36 , Nonverbal Reasoning= 92.0 ± 8.12 , but Spatial= 85.4 ± 10.88 . None required special education. Parental behavioral ratings indicated three were intact for internalizing problems, externalizing problems, behavioral symptoms, and adaptive skills; two at-risk for externalizing problems, one also for behavioral symptoms and one with significantly poor adaptive skills.

Conclusions: Although resuscitation of extremely early gestation neonates is not universally endorsed, low average (80-89)/average (90-109) functioning can be expected for some born at 23 weeks; severe impairment is not certain. Resuscitation decisions are difficult without knowledge of the best predictors of adequate functional outcome. Risk of spatial dysfunction, hyperactivity, attention problems, and ineffective activities of daily living may be greater in this select population, requiring early interventional therapies in preparation for school entry. Further study of these fragile survivors is warranted.

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FACTORS WITH IMPACT ON THE INCIDENCE OF LARGE FOR GESTATIONAL AGE BIRTHS

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Background: Large for gestational age (LGA) newborns associate both significant neonatal morbidity and potential threat for the mother. To date, it is difficult to accurately predict neonatal macrosomia clinically.

Objective: To examine the risk factors associated with LGA newborns in a geographically defined population.

Methods: Retrospective cohort study (N=14831) of singleton live births (2004-2008) using maternal and newborn data from a Regional tertiary unit. The variables selected for inclusion in this study were based on a review of published medical research and included infant characteristics (gender, gestational age), genetic or constitutional factors (maternal prepregnancy weight, maternal height), lifestyle factors during pregnancy (smoking, alcohol), preexisting medical diseases (diabetes mellitus), obstetrical history (parity, gravidity), medical problems during current pregnancy. Multivariable regression statistics were used to determine the significance of each variable.

Results: LGA newborns represented 4.48% (N=665) of the studied population, whereas adverse neonatal outcomes (i.e. shoulder dystocia, brachial nerve injuries, clavicular fractures, and neonatal hypoglycemia) were reported in 9% of LGA newborns. After adjusting for potential confounders, the main predictors LGA births were a previous history of an LGA delivery (i.e. associated with a 3-fold increase in the likelihood of delivering a

LGA infant), prepregnancy obesity and preexisting diabetes mellitus (an almost twofold higher risk to give birth to a LGA infant), gestational diabetes mellitus, and multiparity.

Conclusions: The results of this study identified predictive factors for LGA births in the studied population. Data collected support the planning of population-based interventions aimed both at prevention of this morbidity.

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ACCURACY OF SCALES USED TO WEIGH NEWBORN INFANTS

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Background: Newborn infants who receive medical care are repeatedly weighed in hospital. These weights are used to determine adequacy of fluid balance, feeding and growth; and to determine appropriate drug doses.

Objective: To determine the accuracy of the scales used to weigh newborns in our hospital.

Design/Methods: All scales used to weigh infants in our hospital were checked with 3 standard weights: 500g, 1000g and 3500g. All weights were placed on each scales on 3 occasions (i.e. total 9 measurements) by one of two investigators. The order in which the weights were placed on the scales and the investigator who placed the weights on the scales were chosen randomly.

Results: We studied 28 infant scales (seca, Germany. Models 335, 835-2, 376, 727, 375). Eleven (39%) scales measured the weights correctly on all occasions. Seventeen (61%) scales gave inaccurate results on 80 occasions in total, mean (SD) of 52 (29) % of occasions each. When inaccurate, the scales most frequently underestimated the true weight [63/80 (79)%]. Inaccurate measurements occurred increasingly frequently with heavier weights [19/84 (23%) measurements with the 500g weight; 24/84 (29%) with the 1000g; 37/84 (44%) with the 3500g]. The errors ranged from an underestimate of 40g to an overestimate of 220g. The mean (SD) error in absolute weight was 27 (33) g and in proportion of weight was 2 (3) %.

Conclusions: Scales used to weigh newborns are frequently inaccurate. While the errors we found were relatively small we speculate that they may be greater in clinical practice.

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APGAR: CESAREAN SECTION AND VAGINAL DELIVERY

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One of the special problems in obstetric is extra ordinary increase of the Cesarean Section (C/S) rate.

Aims: To compare: A) APGAR score of C/S with V/D. B) Time of C/S with V/D.

Materials & Methods: This is a case-control study (retrospective), which compared 289 C/S case notes with 301 V/D. (Randomly selected from entire case notes of one of the non-educational hospitals of Iran University of Medical Sciences. The descriptive and inferential statistics (X², T test, and mann-withny) were used.

Results: Average of first APGAR score in V/D group was 8.15 (SD= +_ 1.6) and in C/S was 7.78 (SD= +_ 0.9). Average of APGAR score after 5 minutes in V/D group was 9.34 (SD= +_ 1.2) and in C/S was 8.86 (SD= +_ 0.7). Rate of C/S Section at 10AM was 7.2%, at 3 PM was 7.2%, and during 12 MN till 5 AM was 6.5%. 7% of C/S did not have acceptable or clear reasons such as Tubectomy (8 cases) etc.

Conclusions: There was significant difference between minute one and minute five APGAR scores of the two groups. (P= 0.000) Therefore it is not acceptable that with C/S baby will have better APGAR score. There was correlation between time and type of delivery. (P=0.000) It might be due to convenience factors. This study indicates that some operations were not done for medical reasons, such as clients' demands because of fear from pain of V/D, therefore with respect to patient rights; obstetricians must offer more counseling about side effects of C/S.