

PEDIATRIC HEALTH

Title: Effect of Dietary Counseling and Iron Supplementation on Iron Status of 4 – 6 Months, Exclusively Breast-Fed Infants during the 1st Year of Life

Authors: M. Faqih and H. S. Qazaq

Source: Dirasat, Medical and Biological Sciences, vol. 25, no. 1, 1998

Keywords: Diet, Counseling, Iron Supplementation, Breast Feeding

Abstract:

A total sample of 117 (63 males and 54 females) full-term, clinically healthy, 3-month-old infants were recruited to participate in a 9 month longitudinal study. Infants were subjected to exclusive breast-feeding for 4 to 6 months postpartum. After their enrollment was completed in October 1994, the infants were randomly divided into three groups, each comprising 39 infants: 19 infants in the dietary counseling (DC) group, 17 infants in the iron-supplemented group (IS), and 15 infants in the control group (CL) which was not subjected to any interventions. A total of 66 infants dropped out for various reasons.

Medicinal ferrous sulfate drops were given daily at 1 mg L/kg body weight for the IS group. The combined prevalence of nutritional anemia (NA) at 9 and 12 months was 26.3% for the DC group, 5.9% for the IS group, and 33.3% for the CL group. The values for iron deficiency anemia (IDA) were 15.8% for the DC group, 0.0% for the IS group, and 26.7% for the CL group. Significant differences were observed only in the IS group. Medicinal iron supplementation was concluded to be an effective strategy to protect against the development of IDA during the second half of an infant's first year in comparison with the strategy of dietary counseling among families of low to medium socioeconomic status. The data also suggest that exclusive breast feeding for the first 4 to 6 months does not protect an infant from developing nutritional anemia or iron deficiency anemia during the first 12 months of life. Nutritional anemia was mainly due to a deficiency of iron.

Title: The Effect of Prenatal Knowledge of Fetal Sex on Newborn Birth Weight

Authors: Haitham Mihiar

Source: Thesis, Jordan University of Science and Technology, 1994

Keywords: Prenatal Knowledge, Fetal Sex, Birth Weight, Newborn

Abstract:

The birth weight of 1195 newborns (594 males and 601 females), was recorded from the records of three hospitals in Amman at the time of delivery. The mean birth weight of males was found to be significantly higher ($P < 0.05$) than that of females ($3303\text{g} \pm 543\text{g}$). The risk of low birth weight (LBW) was slightly higher for females but not statistically significant ($P > 0.05$). After adjustment for prenatal knowledge of fetal sex, males with known sex were found to have the highest mean birth weight ($3310.8\text{g} \pm 539.7\text{g}$), while the lowest mean birth weight was for females with prenatal known sex ($3190\text{g} \pm 562.9\text{g}$). The difference between males and females in the mean birth weight had increased from around 98g (> 0.05) when the prenatal sex was not known, to 120g ($P < 0.05$) when the fetal sex was known. The risk of LBW increased slightly for females, from $\text{OR} = 1.10$ when fetal sex was unknown, to be $\text{OR} = 1.27$ when the fetal sex was known ($P > 0.05$). Among males whose sex was known, an increased risk of LBW was observed with mother's age (> 20 years), mother's education (up to level 10), father's education ($>$ level 11), and with low and high family income. Females showed similar results except that an increased risk of LBW was seen with professional housewives and residency outside Amman. It is observed that the risk of LBW was higher for males when prenatal sex was known over males with prenatal sex unknown.

Similar results were obtained for females when the sex of last child or the child before the last was a female, when the family had more female siblings than males, and when there was an equal number of male and female siblings. Females had increased risk of LBW when the family had at least one male. The risk increased for males only when the family had male siblings or when the last child was a male.

This study also showed that the risk of LBW was marked among both male and female newborns with high parity, past history of LBW and, when contraception was not used. However, males had increased risk of LBW with short gestational age, in contrast to females who had increased risk of LBW with long gestational age and with 1 to 3 years since the last delivery ($P < 0.05$). Finally, this study showed that the risk of LBW increased for both male and females when prenatal sex was known and the mother weighed 50-60 kg before pregnancy; gained > 14 kg during pregnancy; or received antenatal care from a private health service. The risk of LBW increased for males only when the mother weighed less than 50 kg before pregnancy, gained < 10 kg during pregnancy, or made few antenatal visits < 8 visits. On the other hand, the risk of LBW increased for females when the mother gained more than 11 kg, made more than nine antenatal visits, received antenatal care from public health services, was a smoker, and regardless her height.

Title: Evaluation of the Effect of a Nutritional Intervention Program on the Growth of a Sample of Underweight Jordanian Children

Authors: Zuhair AL-Mugrabi

Source: Thesis, University of Jordan, 1992

Keywords: Nutrition, Growth, and Underweight

Abstract:

This study was conducted between September and December 1990 in the Mother and Child Health Care Center (MCHC) in Amman. It included 64 children from both sexes ranging in age between 9-16 months who did not show any clinical signs of nutritional deficiencies. The objective of the study was to evaluate the effect of the nutritional counseling program on the growth of children whose weight was below the 3rd percentile for age. Nutritional status before and after the study was assessed using anthropometric measurements, clinical examinations, and laboratory examinations and food intake. The children were divided into two matched groups (A and B) with respect to sex and age. Each group consisted of a total of 32 children. A nutritional counseling program was applied to group A. The program included a pamphlet which emphasized the use of recipes based on locally available food stuffs that satisfied essential nutritional needs for catch-up growth. Educational aids like posters, slides and lectures about the program were also used. Growth of the children in both groups was monitored for a period of four months. The results of the study indicated that there was a significant regression coefficient between the increments in protein and energy intake and the increments in body weight ($R^2=0.4$, $P<0.01$) in group A. The nutritional status of the children in group A improved. Seventy-eight percent of the children in group A gained weight above the 3rd percentile for their age compared to only 16% of children achieving this level of weight gain in group B. The results of the study confirmed the effectiveness of the nutritional counseling program that was based on available local food stuffs for the catch-up growth of underweight children.

Title: Poor Weight Gain in Premature Infants and Late Metabolic Acidosis: Experience With Bicarbonate Therapy

Authors: Abdulkader M. Shamayleh

University of Jordan

Source: Dirasat Volume XIV (1987) Number 6

Keywords: Weight, Premature, Metabolic Acidosis, Bicarbonate Therapy

Abstract:

This is a prospective study of 26 infants born prematurely and admitted to the Neonatal Intensive Care Unit at Jordan University Hospital in Amman, Jordan, and who failed to gain adequate weight after stabilization of their arterial blood gases. Oral supply of those premature neonates with sodium bicarbonate in a dose of 2-5 mEq/kg/day for an average of 4 weeks resulted in excellent and rapid weight gain (after 3 days of starting therapy) in 22 patients (84.6%). Only four patients (15.4%) showed delayed response in weight gain (after one week of therapy). This study indicates that when sodium bicarbonate is given orally in small multiple doses to premature infants with late metabolic acidosis it corrects acidosis and promote weight gain, and it is very safe.

Title: Affect of Stage of Lactation and Months of the Year on Milk Yield and Composition

Authors: Nizar Shokri, Daoud Al-Thamiri, Intisar Al-Sirai

Source: Dirasat, Vol. 26 (4) 1989

Keywords: Lactation, Milk Yield, Milk Composition

Abstract:

The relationship between the stage of lactation and the months of the year on milk yield and composition were studied. For the first factor, two groups of mothers at different stages of lactation were under investigation. For the second factor, milk samples were collected during the period of January through December 1985 and were analyzed. The results showed that milk yield and composition were both significantly affected by both factors.

Title: Prevalence of Low Birthweight

Authors: Adnan Abbas

Source: Thesis 1995, Jordan University for Science and Technology

Keywords: Low Birth Weight

Abstract:

The purpose of the present study was to determine the prevalence of low birth weight (LBW) and to highlight the possible associated factors among the mothers who delivered at the maternity ward of King Hussein Medical Center in Amman, Jordan from January to March of 1994. A cross-sectional design was used in this study. A questionnaire was used to collect data from mothers by face-to-face interview after delivery. The study found that the prevalence of LBW was 8.2%. The study also revealed a significantly positive association between mother age, education, family income, pregnancy spacing, live birth order, number of prenatal care visits, and gestational age with LBW ($P < 0.05$). The present work concludes that a variety of risk factors are clearly and consistently linked to LBW and can be used to help define high risk groups and, where possible, provide interventions to control this risk. The study suggests that improving the quality of prenatal care by encouraging active, early and regular prenatal care and by continuous supervision of pregnant mothers may have a vital role in reducing the prevalence of LBW.