fetal outcome for pregnancies with weight gains within the recommended limits, the recognition of a real causative relationship and definition of abnormal patterns in temporal and compositional terms still needs large scale, well designed, prospective comparative studies.

L79

IRON SUPPLEMENTATION IN PREGNANCY

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Iron deficiency anemia is the most common nutritional deficiency in the world. Pregnant women are at especially high risk for iron deficiency and iron deficiency anemia. A considerable proportion of pregnant women in both developing and industrialized countries become anemic during pregnancy. The prevalence of anemia in pregnant women has remained unacceptably high worldwide despite the fact that routine iron supplementation during pregnancy has been almost universally recommended to prevent maternal anemia especially in developing countries over the past 30 years. The major problem with iron supplementation during pregnancy is compliance. Despite many studies, the relationship between maternal anemia and adverse pregnancy outcome is unclear. However, there is now sufficient evidence that iron supplements increase hemoglobin and serum ferritin levels during pregnancy and also improves the maternal iron status in the puerperium, even in women who enter pregnancy with adequate iron stores. Recent information also suggests an association between maternal iron status in pregnancy and the iron status of infants postpartum. The necessity of routine iron supplementation during pregnancy has been debated in industrialized countries and routine supplementation is not universally practiced in all these countries. In view of existing data, however, routine iron supplementation during pregnancy seems to be a safe strategy to prevent maternal anemia in developing countries, where traditional diets provide inadequate iron and where malaria and other infections causing increased losses are endemic.

Key words: Iron supplementation, pregnancy, anemia.

L80

VITAMIN SUPPLEMENTATION IN PREGNANCY

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The prescribing of vitamin supplements during pregnancy has become standard in obstetric practice. It is obvious the growth and development of the fetus depend on maternal supply of essential nutrients, e.g vitamins. In some studies it was reported that vitamin deficits during pregnancy might result in megaloblastosis, neural tube defects, placental and fetal defects, low birth weight and premature delivery. But these subjects are still being studied because the recommendation, which suggest that these supplements improve maternal and fetal outcome, however are often based on studies with serious deficiencies. Moreover, the increase in vitamin requirements during pregnancy usually can be more than adequately provided by dietary sources, assuming appropriate caloric intake and the consumption of animal protein. Much knowledge regarding transport of vitamins across the placenta is derived from animal studies and simple case reports. The animal data are generally obtained using study designs in which vitamins are totally excluded or administered to excess. This type of study design has little potential application to the human experience, even in a severely malnourished mother or a mother who is taking "megadose" vitamins. Human studies of pregnancy complications associated with vitamin deficiencies are generally uncontrolled; frequently they are performed in populations of patients with generally poor nutrition and multipl vitamin and mineral deficencies. For this reason, it is difficult to extrapolate from these data to populations of pregnant women with well-balanced and nutritionally complete diets. Finally, there is no agreement on what constitutes normal serum levels of vitamins during pregnancy. Normal values for nonpregnant states do not correspond to values in the pregnant state. All maternal serum vitamin levels decrease as pregnancy progresses and hypovitaminemia compared to non-pregnant women seems to be a normal status even in pregnant women who is using vitamins. This is because of the nor-

mal physiologic changes of pregnancy, which result in a decrease in many binding globulins and an increase in plasma volume and also the increased placental vitamin transfer to the fetus from the mother. While it is generally agreed that the scientific evidence for universal vitamin supplementation during pregnancy is ambigious, when undertaken with reason, it represents a benign therapy with potential for improved outcome. Newer data support more conclusively the therapeutic benefit of some vitamin supplementation to prevent spesific diseases. Example is vitamin use for the prevention of neural tube defects. On the other hand, frequently uncontrolled vitamin use, especially of megavitamins, may cause increased risks for pregnancies.

L81

LOW BIRTHWEIGHT

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In the developing world, low birthweight stems primarily from the mother's poor health and nutrition. Three factors have most impact: the mother's poor nutritional status before conception, short stature (due mostly to undernutrition and infections during her childhood), and poor nutrition during the pregnancy. Inadequate weight gain during pregnancy is particularly important since it accounts for a large proportion of foetal growth retardation. Moreover, diseases such as diarrhoea and malaria, which are common in many developing countries, can significantly impair foetal growth if the mother becomes infected while pregnant.

According to the most recent estimates for 145 countries, approximately 14% - or 18 million – newborns each year are low birthweight. The majority of these babies are born in developing countries. South Asia has by far the highest levels, with one out of every four babies born with with low birthweight. More than half of all low birthweight infants in the world are born in South Asia. Low birthweight is also relatively common in Sub-Saharan Africa, and in the Middle East and North Africa, at least 12% and 11%. By contrast, the percentage of low birthweight in the industrialized countries in only 7%.

Weight at birth reflects the intrauterine experience: It is a good indicator not only of a mother's health and nutritianal status but also the newborns' chances for survival, growth, long-term health and psychosocial development.

L82

CONGENITAL CYTOMEGALOVIRUS INFECTION: HEMATOLOGICAL EVOLUTION IN NEWBORN INFANTS TREATED WITH GANCICLOVIR

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Objective: To verify the hematological evolution of newborns with congenital cytomegalovirus infection treated with Ganciclovir and two type of regimens. Methods: From January 1998 to December 2000, we studied 24 neonates with symptomatic congenital cytomegalovirus infection (CMV) that were admitted to the Neonatal Intensive Care Unit (NICU). The newborns were classified into two groups: 14 neonates were given an initial treatment course of 7.5 mg/Kg twice daily for three weeks, then a maintenance course of 10 mg/Kg three times a week for 3 months (Nigro 1994) (group A) and 10 neonates received 7.5 mg/Kg twice daily for three weeks (group B). Criteria for eligibility were: signs and symptoms compatible with a congenital infection from whom a specimen of urine and blood could be taken in the first 21 days of life. Results: In group A the CMV cultures and CMV DNA of specimens from eleven infants (80%) became sterile. In group B, five infants (50%) had negative CMV culture and CMV DNA results. The clinical features in group A included hepatomegaly (92.8%), splenomegaly (64.2%), anemia (57.1%), jaundice (55%) and petachial rash (55%). Hematological results are shown below: table 1 and table 2.