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ABSTRACTS

ZINC AND RETINOL BINDING PROTEIN LEVELS IN PREGNANCY*

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Zinc (Zn), one of the most important trace elements, is essential for normal growth and development during the prenatal and piostnatal periods. Several studies have shown that serum and plasma Zn levels were lower during the pregnancy. However there was no consensus on the decrease of plasma Zn levels, such as in which trimester Zn level is lowest or either it is physiological or dependent upon nutrition and other factors.

In addition, it has been shown that there may be a relationship between vitamin A (retinol) metabolism and Zn. Retinol is bound to retinol binding protein (RBP) which is a specific transport protein in the plasma. Our purpose was to study possible changes in the levels of plasma Zn and serum RBP during pregnancy, and to find out whether there is a relationship between the levels of Zn, RBP and antropometric findings of the new borns. We measured plasma Zn and serum RBP levels longitudinally in a group of 39 healthy pregnant women, ages between 17-38 yrs. Our control group consisted of 40 healthy, non pregnant women at the similar age who were not using any drugs or alcohol. Plasma Zn level was measured by flame atomic absorption spectrophotometer, serum RBP level was evaluated by radial immunodiffusion method.

Results of this present study revealed a progressive decline in plasma Zn levels as the pregnancy progresses and "nutrition" played an important role as the women from "poorly nourished" group had the lower plasma zinc levels, as compared to "well nourished" counterparts. There was however no difference between the serum RBP levels of the control group and the pregnant women, furthermore RBP was not influenced from the changes in nutrition.

In conclusion, no significant correlation between the plasma Zn and serum RBP levels and the newborn infant's antropometric findings were detected in this study.

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