

THE EVALUATION OF MICRO-NUTRIENTS ESPECIALLY ZINC, AS DETERMINANTS FOR A HEALTHY DIET DURING PREGNANCY

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Abstract

Zinc is an essential nutrient that must be ingested dietary and can also be a danger to unborn and newborn children. When their mothers have absorbed large concentrations of zinc, the children may be exposed to it, through blood or milk of their mothers.

We took into consideration 500 cases of pregnant women, from first to third trimester of pregnancy. We collected 2mL blood from each of them, where serum zinc levels were measured by using two different methods: Atomic Absorption Spectroscopy (AAS) and Total Reflection X-ray Fluorescence (TXRF).

According to a statistical data processing, using SPSS Statistics, Descriptive Statistics and ANOVA: Single Factor, there was no significant change ($P > 0.05$) between zinc levels measured by two methods of analyzing. The study showed that the prevalence deficiency of zinc in pregnant women was 62% (310 cases), this because of an eating disorder or when they are breastfeeding. The identification of pregnant women with zinc deficiency was a problem to be considered, because the continuation of the pregnancy until the end was not enough, foetus complete development was also necessary.

Zinc deficiency can be prevented, by ensuring intake of the recommended amounts of zinc, through obtaining zinc from dietary sources (such as peanuts and beef or lamb) and by using zinc supplements if their diet does not provide adequate levels of zinc.

It is advised for pregnant women to pay special attention to food hygiene during pregnancy, in addition to avoid certain foods, in order to reduce the risk of exposure to substances that may be harmful to the developing foetus. Modification of lifestyle is an effective intervention strategy, for improvement of maternal metabolism and the prevention of adverse outcomes.

Key words: *Zinc and pregnancy, Healthy diet, Micro-nutrients, Serum zinc, Zinc determination.*