INTRODUCTION

Iron is one of the most important essential metal ions for ages. This element is a key moiety of several enzymes in iron containing heme or non heme form. Anemia induced by iron deficiency may cause challenge concerns for pregnant women, babies **(Lakatos, 2004).**

Adequate maternal micronutrient status is especially critical during pregnancy and lactation. In this overview, we draw attention to micronutrient issues that are sometimes neglected in the context of pregnancy and lactation **(Allen, 2005).**

One of these is the importance of recognizing the continuum of maternal micronutrient status from the preconception period through lactation, and of fetal and infant dependency on adequate maternal status through this time **(Nesby et al., 2002)**. Multiple micronutrient deficiencies are likely to be contributors to poor pregnancy outcomes and infant development **(Anaya et al., 2004).**

The main cause of multiple micronutrient deficiencies is probably attributed to poor quality diet, often due to an inadequate intake of animal source foods (ASF) especially in developing countries. Women who avoid meat and/or milk in wealthier regions of the world are also at higher risk of micronutrient depletion during pregnancy and lactation**.** Diseases such as malaria, and infection with intestinal parasites, also impair status and alter the metabolism of multiple micronutrients **(Keen et al., 2003).**

Moreover, in pregnancy and/or lactation, the requirements for most nutrients are higher, increasing the risk of inadequate intake. Several micronutrient deficiencies are well established to be contributors to abnormal prenatal development and/or pregnancy outcome. These include folate, iron, and iodine deficiencies **(Allen, 2005).**

Iron deficiency is probably the most common nutritional disturbance in the world. At the highest risk, irrespective of economical status, are women at the reproductive age-especially those who are pregnant **(Kazmierczak et al., 2004).**

Many studies indicated that routine iron supplementation during pregnancy may have beneficial effects on pregnancy outcome. Severe anemia in pregnancy may have adverse effects for the newborn and should be treated or prevented early in pregnancy **(El Cuindi et al., 2004).**

Supplementation with iron is generally recommended during pregnancy to meet the iron needs of both mother and fetus. Iron supplementation may improve pregnancy outcome when the mother is iron deficient. However, it is also possible that prophylactic supplementation may increase risk when the mother does not have iron deficiency **(Scholl, 2005).**

Iron deficiency is unlikely in full-term, breastfed infants during the first 6 months of life because these infants' body iron stores are sufficient to meet requirements **(Griffin and Abrams, 2001).**

In multivariate logistic regression, infants whose mothers were anemic during pregnancy were 2-15 times more likely than others to have any laboratory abnormality **(Kazmierczak et al., 2004).**

It is debatable whether infant feeding practices in the first six weeks can influence the iron store status of infant. There is scarcity of studies on the effect of feeding practices on the iron stores of infants during the first six weeks of age with its relationship to maternal iron supplementation during pregnancy.

Hence this work will focus on the examination of the effect of infant feeding practices on the iron stores of infants at the six week age.

AIM OF THE WORK

Three questions to be answered:

Q1: Is iron supplementation to pregnant women a necessity to prevent iron deficiency anemia if babies are exclusively breastfed from birth?

Q2: Can exclusive breastfeeding in the first six weeks (supported by antenatal education of pregnant women) prevent iron deficiency anemia in lactating women?

Q3: Is iron supplementation during pregnancy a necessity for ensuring normal pregnancy &neonatal outcome if the mother is mildly anemic?

In this study:

Women will be supported antenatally to exclusively breast fed from birth through the six weeks to determine whether the type of feeding practices can influence iron stores of these babies.