

Prevalence of Anemia and Iron Deficiency in Women of Childbearing Age in the North-West of Libya

Authors : Mustafa Ali Abugila, Basma Nuri Kajruba, Hanan Elhadi, Rehab Ramadan Wali

Abstract : Iron deficiency anemia is characterized by a decrease of Hb (hemoglobin), serum iron, ferritin, and RBC (red blood cells) (shape and size). Also, it is characterized by an increase in total iron binding capacity (TIBC). Red blood cells become microcytic and hypochromic due to a decrease in iron content. This study was conducted in the north west of Libya and included 210 women in childbearing age (18-45 years) who were visiting women clinic. After filling the questionnaire, blood samples were taken and analyzed for hematological and biochemical profiles. Biochemical tests included measurement of serum iron, ferritin, and total iron binding capacity (TIBC). Among the total sample (210 women), there were 87 (41.42%) pregnant and 123 (58.57%) non-pregnant women (includes married and single). Pregnant women (87) were classified according to the gestational age into first, second, and third trimesters. The means of biochemical and hematological parameters in the studied samples were: Hb = 10.37 ± 2.02 g/dl, RBC = 3.78 ± 1.037 m/m³, serum iron 61.86 ± 40.28 µg/dl, and TIBC = 386.01 ± 94.91 µg/dl. In this study, we considered that any women have hemoglobin below 11.5 g/dl is anemic. 89.1%, 69.5%, and 47.8% of pregnant women who belong to third trimester had low (below normal value) Hb, serum iron, and ferritin, i.e. iron deficiency anemia was more common in third trimester among the first and the second trimesters. Third trimester pregnant women also had high TIBC more than first and second trimesters.

Keywords : red blood cells, hemoglobin, total iron binding capacity, ferritin

Conference Title : ICBPS 2014 : International Conference on Biomedicine and Pharmaceutical Sciences

Conference Location : Tokyo, Japan

Conference Dates : May 29-30, 2014