Comparative study of serum ferritin level between pre and post menopausal women attending Usmanu Danfodiyo University Teaching Hospital (UDUTU), Sokoto, Nigeria

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Background: Menopause which is defined as cessation of menstrual bleeding is assumed to lead to an increase in iron stores over the menopausal transition.

Method: This study was carried out to determine the level of serum ferritin between pre and postmenopausal women attending Usmanu Danfodiyo University Teaching Hospital, Sokoto. The study was conducted among 150 women (75 premenopausal and 75 postmenopausal) with mean age 43.99±19.22.

Result: The serum ferritin was significantly higher among postmenopausal women 47.38±43.00 compared to premenopausal women 21.96±20.15 (p=0.01). The prevalence of anemia based on serum ferritin level was higher among premenopausal women (8.7%) compared to postmenopausal women (2.7%). Low ferritin level <3.5 ng/ml was higher among Hausa/Fulani (6.02%) compared to other ethnic groups. The difference however was not statistically significant (p=0.91). The age range for premenopausal and postmenopausal women was 18-49 and 50-87 years respectively. Low ferritin level was higher among premenopausal women in the 25-34 years age group compared to other age group. Ferritin level <3.5 ng/ml was higher among subjects with no formal education (p=0.69).

Conclusion: This study has shown that serum ferritin and anemia based on serum ferritin level of <3.5 ng per ml was significantly higher among premenopausal compared to postmenopausal women. Serum ferritin should be used for the diagnosis and monitoring of iron deficiency anemia in pre and postmenopausal women. Ferritin level of <3.5 ng/ml should be used as cutoff for the diagnosis of depleted iron store.

Biography

Erhabor Osaro is currently a Professor of Hematology, Transfusion Medicine and Laboratory Total Quality Management. He is an Alumni of Rivers State University of Science and Technology, Nigeria, University of Greenwich in the United Kingdom and Francis Tuttle College of Technology in Oklahoma, USA. He is the author of 5 books and 5 book chapters. He has published more that 190 papers in the field of infectious diseases, hematology, blood transfusion science and total quality management. He is also a Member of the Editorial Board as well as an article Reviewer to several international scientific journals.

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