Factors Affecting ferritin level in children of 6 to 59 Months in the Eastern region of Cameroon

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Abstract

Ferritin is the principal storage protein for iron in tissues and is involved in its uptake, accumulation and release in cells. Only minute amounts of ferritin are present in plasma but in health Ferritin reflects total iron storage and is also the first laboratory index to decline with iron deficiency. It may be less accurate in children with infectious or inflammatory conditions as an acute phase reactant. Considering the fact that Cameroonian children live in such context, our objective was to study factors affecting ferritin level. A cross sectional study was carried out in children of 6 to 59 months attending the Bertoua regional hospital. Data were collected and blood distributed in EDTA and dry tubes for full blood count, CRP and Ferritin analysis. Obtained data were analysed using SPSS 20.0. 130 children were included with a mean age of 27.4 months, the mean haemoglobin was 10.46g/dl. Ferritin as preconized by WHO for the diagnosis of iron deficiency anaemia, was below 30μg/l in 3.84% (5) independently of anaemic status. Inflammation tested by CRP occurred in 37.7% (49) children. When the ferritin cut-off value was shifted to 50 μg/l, ferritin was low in 9. 2% (12) thus approaching the stated frequency of iron deficiency by Engle and al, 2013. Mean ferritin level was 343.9μg/l. A relatively high level showing that iron storage seems to remain intact in most children despite anaemic or inflammatory status. The cut-off value for iron deficiency in children should be increased to prevent severe iron deficiency anaemia.

Biography:

Agokeng Demanou Sylvie is a PhD student of chemical pathology at the University of Buea, aged of 36 years. She is quality control manager at the Blood bank of the Bertoua regional Hospital. Before her work in public service she served as project manager in the project Kaposi’s sarcoma in Cameroon at Sochimio. Actually working on a project entitles soluble transferrin receptor in the diagnosis of iron deficiency anaemia in children.

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