Ferritin levels throughout childhood and metabolic syndrome in adolescent stage

Suárez-Ortegón, M. F.
Blanco, E.
McLachlan, S.
Fernandez-Real, J. M.
Burrows, R.
Wild, S. H.
Lozoff, B.
Gahagan, S.

© 2019 The Italian Society of Diabetology, the Italian Society for the Study of Atherosclerosis, the Italian Society of Human Nutrition, and the Department of Clinical Medicine and Surgery, Federico II University

Background and aim: Increased ferritin levels have been widely associated with cardiovascular risk in adults. Whether ferritin levels and their changes during childhood are related to metabolic syndrome (MetS) at adolescence is unknown. We aimed to evaluate these associations using levels of ferritin at 5, 10 and 16 years and their linear increases and patterns of sustained increased levels across childhood. Methods and results: There were four samples evaluated according to non-missing values for study variables at each stage (5 years: 562; 10 years: 381; and 16 years: 567 children; non-missing values at any stage: 379). MetS risk was evaluated as a continuous Z score. Patterns of sustained increased ferritin (highest tertile) and slope of the change of ferritin per year across