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A hidden danger of obesity: Iron deficiency anaemia

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Hidden hunger is a global public health concern with iron and other nutritional deficiencies masked by signs of overnutrition. The inverse relationship between iron status and obesity was first reported in 1962¹. Reasons, why obesity is associated with iron deficiency, include inadequate dietary iron intake and increased iron requirements because of increased blood volume². Impaired duodenal iron absorption, obesity-associated low-grade inflammation influencing iron status and alterations to the iron regulatory protein hepcidin have also been suggested³. The aim of the review is to evaluate interventions which treat iron deficiency anemia in obese women of reproductive age. The database 'PubMed-MEDLINE' was searched using the following keywords: iron, status, intervention, obese and adult. Intervention studies involving non-pregnant, women with overweight/obesity of reproductive age (19-49 years) and studies where \geq one standard assessment measure of iron such as ferritin, hemoglobin, hematocrit and plasma iron were included. Forty-seven articles were assessed against the eligibility criteria and six articles were then included. The literature review has shown that few intervention studies have been designed to address iron deficiency in women of reproductive age who are either overweight or obese. Further, the interventions have not been particularly effective in improving the iron status of this population group but have prevented further deterioration. Although a high protein diet⁴, breakfast cereals⁵ and exercise training⁶ were found to be effective in improving some biomarkers for iron status, more research is needed to better understand the underlying mechanism of iron deficiency among women who are overweight or obese.

Biography

Kaya Kacar is currently doing Ph.D. in Nutritional Sciences at the University of Nottingham, UK. She received her bachelor's degree from the University of Erciyes, Turkey. She then worked in a public hospital in Turkey, served as a dietitian. She completed her Master in Advanced Dietetic Practice from the University of Nottingham. She is a fellow in Turkish Dietetic Association. Kaya Kaçar is awarded by the Turkish Ministry of Education Ph.D. scholarship

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