

عنوان مقاله:

BODY IRON STORES AND OXIDATIVE STRESS MARKERS IN WOMEN OF REPRODUCTIVE AGE: IS IT
?RELATED TO ATHEROSCLEROSIS

محل انتشار:

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تعداد صفحات اصل مقاله: 7

نویسندگان:

Farshad Amirkhizi - *Nutritionist, Department of Basic Sciences, School of Medicine, Zabol University of Medical
Sciences, Zabol*

Fereydoun Siassi - *Professor of Nutrition, Department of Nutrition and Biochemistry, School of Public Health, Tehran
University of Medical Sciences, Tehran*

Sara Minaie - *Nutritionist, Department of Nutrition and Biochemistry, School of Public Health, Tehran University of
Medical Sciences, Tehran*

Mahmoud Djalali - *Professor of Biochemistry, Department of Nutrition and Biochemistry, School of Public Health,
Tehran University of Medical Sciences, Tehran*

Maryam Chamari - *Nutritionist, Department of Nutrition and Biochemistry, School of Public Health, Tehran University
of Medical Sciences, Tehran*

خلاصه مقاله:

Abstract BACKGROUND: Elevated body iron stores have been suggested to be a risk factor for cardiovascular disease (CVD). We examined whether elevated plasma ferritin concentrations as indicator of iron stores, affect the oxidative stress markers in a reproductive age women population. METHOD: One hundred sixty, ۲۰-۴۵-year-old women were randomly selected. We investigated body iron stores by measuring the concentrations of plasma ferritin. Furthermore, we assessed oxidative stress markers by measuring the concentrations of plasma malondialdehyde (MDA) and activities of erythrocyte cytoprotective enzymes, including superoxide dismutase (CuZn-SOD), catalase (CAT) and glutathione peroxidase (GPX) in a random sample of cardiovascular disease-free women in reproductive age. RESULTS: Subjects in the highest tertile of plasma ferritin presented the highest levels of plasma MDA ($p < 0.001$) and CAT activity ($P < 0.05$). Furthermore, these Subjects presented the lowest levels of CuZn-SOD activity ($P < 0.01$). No significant associations were found between the tertile of plasma ferritin in GPX activity. Plasma ferritin was significantly directly associated with plasma MDA levels and inversely associated with CuZn-SOD activity. Using multiple regression, Plasma ferritin levels was positively correlated with MDA levels and inversely correlated with CuZn-SOD activity. CONCLUSION: Our findings revealed an association between body iron stores and oxidative stress markers linked to atherosclerosis process. The results emphasize that iron overload would elevate the risk of coronary artery disease by promoting the lipid peroxidation. Keywords: Iron stores, ferritin, oxidative stress, atherosclerosis, women, reproductive age

کلمات کلیدی:

