

Postmenopausal Dyslipidemia – Nutritional Risk Factors and Oxidative Stress Implication

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The molecular background of postmenopausal dyslipidemia in obesity is associated with improperly balanced diet that increases the risk of oxidative stress processes and the development of cardiometabolic risk. The prevalence of atherosclerosis, hypertension, coronary heart diseases, diabetes mellitus and some neoplasms augment after menopause.

In this study anthropometrical and nutritional risk factors that may contribute to metabolic and oxidative disorders in the group of postmenopausal obese women with dyslipidemia (n=72) were evaluated. We estimated nutritional state and dietary habits and measured lipid profile, superoxide dismutase (SOD), advanced oxidation protein products (AOPPs), uric acid and adiponectin.

Increased mean body mass (>92.0 kg), second degree of obesity (BMI>35.6 kg/m²), high amount of body fat content measured by bioimpedance method (>48.8% of body mass) and visceral distribution of fat tissue may increase the risk of metabolic and oxidative disorders. The daily food rations (DFRs) of studied women were improperly balanced and indicated the protein and fat overfeeding with the predomination of animal protein. High cholesterol and saturated fatty acids intake and low consumption of polyunsaturated fatty acids dietary fiber may also contribute to increased risk of reactive oxygen species formation.

AOPPs concentration (conversely to SOD level) was positively correlated with LDL level and negatively %HDL/CH ratio. Increased concentration of uric acid and decreased level of adiponectin was observed.