

Effect of a Nutritional Supplement Containing Euterpe oleracea Mart., Inulin, Phaseolus vulgaris and Caralluma fimbriata in Persons with Metabolic Syndrome

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Abstract : Obex is a nutritional supplement to help weight loss naturally. In addition, this supplement has a satiating effect that helps control the craving to eat between meals. The purpose of this study was to evaluate the effect of Obex in the metabolic syndrome (MS). This was an open label pilot study conducted in 30 patients with MS and ages between 29 and 60 years old. Participants received Obex, at a dose of one sachet before (30 to 45 minutes) the two main meals (lunch and dinner) daily (mean two sachets per day) for 3 months. The content of the sachets was dissolved in a glass of water or fruit juice. Obex ingredients: Açai (Euterpe oleracea Mart.) berry, inulin, Phaseolus vulgaris, Caralluma fimbriata, inositol, choline, arginine, ornithine, zinc sulfate, carnitine fumarate, methionine, calcium pantothenate, pyridoxine and folic acid. In addition to anthropometric measures and blood pressure, fasting plasma glucose, total cholesterol, triglycerides and HDL-cholesterol and insulin were determined. Insulin resistance was assessed by HOMA-IR index. Three indirect indexes were used to calculate insulin sensitivity [QUICKI index (Quantitative insulin sensitivity check index), Bennett index and Raynaud index]. Metabolic syndrome was defined according to the Joint Interim Statement (JIS) criteria. The JIS criteria require at least three of the following components: (1) abdominal obesity (waist circumference major or equal major or equal 94 cm for men or 80 cm for women), (2) triglycerides major or equal 1.7 mmol/L, (3) HDL cholesterol minor 1.03 mmol/L for men or minor 1.30 mmol/L for women, (4) systolic/diastolic blood pressure major or equal 130/85mmHg or use antihypertensive drugs, and (5) fasting plasma glucose major or equal 5.6 mmol/L or known treatment for diabetes. This study was approved by the Ethical and Research Committee of the National Institute of Endocrinology, Cuba and conducted according to the Declaration of Helsinki. Obex is registered as a food supplement in the National Institute of Nutrition and Food, Havana, Cuba. Written consent was obtained from all patients before the study. The clinical trial had been registered at ClinicalTrials.gov. After three months of treatment, 43.3% (13/30) of participants decreased the frequency of MS. Compared to baseline, Obex significantly reduced body weight, BMI, waist circumference, and waist/hip ratio and improved HDL-c ($p<0.0001$) and in addition to lowering blood pressure ($p<0.05$). After Obex intake, subjects also have shown a reduction in fasting plasma glucose ($p<0.0001$) and insulin sensitivity was enhanced ($p=0.001$). No adverse effects were seen in any of the participants during the study. In this pilot study, consumption of Obex decreased the prevalence of MS due to the improved selected components of the metabolic syndrome, indicating that further studies are warranted. Obex emerges as an effective and well tolerated treatment for preventing or delaying MS and therefore potential reduction of cardiovascular risk.

Keywords : nutritional supplement, metabolic syndrome, weight loss, insulin resistance

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