Role of aged crushed Allium Sativum L. on systemic inflammatory markers in patients with Syndrome-X

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Syndrome-X (Metabolic syndrome) comprised a cluster of risk factors described by abdominal obesity, hypertension, atherogenic dyslipidemia, hyperglycemia, prothrombotic and proinflammatory conditions. Raw Allium sativum L (garlic) homogenate has been explained to diminished cardiovascular risk factors in animal model; however, no specific studies have been conducted to appraise the role of aged crushed Allium sativum L. on components and inflammatory markers in syndrome-X. Hence present study was intended to explore the role of aged crushed garlic on systemic inflammatory markers in patients with syndrome-X. A total of 40 patients with syndrome-X were enrolled from diabetic's centre of Medical College Bikaner, India. They were endure treatment with 100 mg/kg body weight aged crushed garlic two times a day with usual diet for four weeks and their anthropometric as well as serum biochemical variables were measured both at the beginning and end of the study. Homeostasis model assessment for insulin resistance (HOMA-IR) was calculated. Statistical analysis was done using IBM: SPSS version 20, and student paired-t test was used to compare variables before and end of treatment of aged garlic preparation. Aged crushed garlic significantly abridged variables of syndrome-X including waist circumference ($p<0.05$), systolic and diastolic blood pressure ($p<0.001$), serum triglycerides ($p<0.01$), fasting blood glucose ($p<0.0001$), tissue narcosis factor-α (TNF-α) ($p<0.05$), serum leptin ($p<0.01$), interleukin-6 (IL-6) ($p<0.001$), high sensitivity C-reactive proteins (hs-CRP) ($p<0.01$) and Homoeostatic model of insulin resistance (HOMA-IR) ($p<0.001$) whereas significantly increased serum high density lipoprotein cholesterol ($p<0.0001$) and adiponectin levels ($p<0.01$) Moreover, there was no significant difference found in body mass index ($p>0.05$) of patients with syndrome-X after consumption of age crushed garlic for 4 weeks. Age crushed garlic has valuable effects on systemic inflammatory markers in patients with syndrome-X thus it can be used as a supplementary remedy for prevention and treatment cardiovascular disorders in patients with metabolic syndrome.

Biography

Prema Ram Choudhary is an assistant professor in the Department of Physiology at C. U. Shah Medical College, Gujarat, India and he is interested in the fields of haematology, herbal medicine, metabolic syndrome, endocrinology, cardio-respiratory physiology, and metabolism and endocrinology. Moreover, published more than 35 original research publications in international journal with high impact factor. He has completed his Masters in Medical Physiology from 2001-2004 at Dr. S.N. Medical College, Jodhpur, India and B.Sc in Biology from 1996 – 1999 at Govt College Sirohi, India.

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