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Nigerian walnut (*Plukenetia conofora*) attenuates oxidative stress in hypercholesterolemic rats

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Nigerian walnut (*Plukenetia conofora*) is a shrub native to and cultivated in the West and central African for its edible seed which is considered useful in the management of stroke and hypertension by local herbalists. The present study aimed at understanding the possible mechanism of action of the seeds by studying the changes in markers of oxidative stress as the seed is used to supplement (5% and 10%) hypercholesterolemic diet (2% cholesterol) fed to albino rats. The result showed a significant ($p>0.05$) decrease in the liver and brain total thiol and non-protein thiol as well as the serum high density lipoprotein (HDL) levels while increasing the organ catalase (CAT) and superoxide dismutase (SOD) activities as well as the total cholesterol (TC), triacylglycerol (TG), low density lipoprotein (LDL) and malondialdehyde (MDA) levels. Supplementation with the seeds however significantly attenuate the effects of the hypercholesterolemia-induced oxidative stress. The attenuation is probably owing to the observed antihypercholesterolemic potential of the nuts, or the intrinsic antioxidant potential of the nuts.

Biography

Babatunde Joshua Otunla is currently studying for his Master's degree at Department of Biochemistry, Joseph Ayo Babalola University, where he bagged his Bachelor's degree. He is a fully baked, technically inclined, scientifically unbiased and self-motivated researcher with a good laboratory proficiency. He is presently a laboratory technologist at Basic Health Centre, Oke Aro, Akure Nigeria. He is a competent and enthusiastic researcher with interest in Nutrition and Cardiovascular diseases. His keen interest understanding the contribution of African diet and nutrition to cardiovascular health has drove him into various research that make use of experimental animal models to investigate the effects of commonly consumed Nigerian foods on markers of cardiovascular health.

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