Coconut water feeding has beneficial effects on lipid metabolism in cholesterol-fed rats. – source: GreenMedInfo Summary

Abstract Title:

Beneficial effects of coconut water feeding on lipid metabolism in cholesterol-fed rats.

Abstract Source:

J Med Food. 2006;9(3):400-7. PMID: 17004906

Abstract Author(s):

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Abstract:

The purpose of this study was to determine the effect of coconut water feeding in cholesterol-fed rats. Male albino rats were fed tender coconut water and mature coconut water at a dose level of 4 mL/100 g of body weight. Cholesterol feeding caused a marked increase in total cholesterol, very low-density lipoprotein (VLDL) + low-density lipoprotein (LDL) cholesterol, and triglycerides in serum. Administration of coconut water counteracts the increase in total cholesterol, VLDL + LDL cholesterol, and triglycerides, while high-density lipoprotein cholesterol was higher. Lipid levels in the tissues viz. liver, heart, kidney, and aorta were markedly decreased in cholesterol-fed rats supplemented with coconut water. Feeding coconut water resulted in increased activities of 3-hydroxy-3-methylglutaryl-CoA reductase in liver, lipoprotein lipase in heart and adipose tissue, and plasma lecithin:cholesterol acyl transferase, while lipogenic enzymes showed decreased activities. An increased rate of cholesterol conversion to bile acid and an increased excretion of bile acids and neutral sterols were observed in rats fed coconut water. Histopathological studies of liver and aorta revealed much less fatty accumulation in these tissues in cholesterol-fed rats supplemented with coconut water. Feeding coconut water resulted in increased plasma L-arginine content, urinary nitrite level, and nitric oxide synthase activity. These results indicate that both tender and mature coconut water has beneficial effects on serum and tissue lipid parameters in rats fed cholesterol-containing diet.

Article Published Date : Jan 01, 2006
Study Type : Animal Study
Additional Links
Substances : Coconut : CK(124) : AC(35)
Diseases : Cholesterol: High : CK(922) : AC(156), Cholesterol: LDL/HDL ratio : CK(432) : AC(58),High Cholesterol: very low density lipoprotein (VLDL) : CK(24) : AC(9), Triglycerides: Elevated : CK(340) : AC(65)
Pharmacological Actions : Hypolipidemic : CK(370) : AC(80)