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Hypolipidemic and cardioprotective effects of *Tabebuia impetiginosa* (Lapacho Tea) extract in wistar rats fed a high fat and fructose diet

Beatrice N Kiage-Mokua

Jomokenyatta University of Agriculture and Technology, Kenya

In earlier studies *Tabebuia impetiginosa* extract inhibited lipase and slowed the increase of postprandial triglycerides in rats given a fat load. Therefore we investigated its triglyceride lowering and cardioprotective effects in Wistar rats fed a high fat and fructose diet (HFFD). In a dose-effect trial three groups of 21 rats each were fed for 74 days only HFFD (controls), or HFFD, to which either 0.3 (HFFD+lowL) or 0.6 mg dry *Tabebuia impetiginosa* extract per kg food (HFFD+highL) was added. Fasting blood samples were drawn before and at the end of intervention. *Tabebuia impetiginosa* extract lowered dose-dependently and significantly ($p < 0.05$) plasma triglycerides (TG), total cholesterol (TC), atherogenic index (AI), cardiovascular risk index (CRI) and liver TG, as well as fasting blood glucose (FBG) and glycated hemoglobin (HbA1c), with correlation coefficients (R) between ± 0.288 and ± 0.519 (General Linear Model (GLM) procedure). Fat malassimilation was not observed. In conclusion, *Tabebuia impetiginosa* extract might be a promising adjunct in the management of hypertriglyceridemia and other risk factors of cardiovascular disease, common in obesity and diabetes.

Keywords: *Tabebuia impetiginosa* extract (lapacho tea); high fat and fructose diet; lipase inhibitor; triglycerides; cardiovascular disease; diabetic obese rats.

Biography

Beatrice Nyanchama Kiage Mokua has completed her PhD at the age of 37 years from Christian Albrechts University (CAU), Kiel, Germany. She is a lecturer at Jomokenyatta University of Agriculture and Technology at the Department of Food science and Technology. She has papers in reputed journals.

beatrice.kiage@jkuat.ac.ke

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