Title of Article: An evaluation of lipid profile and antioxidant activities of *Carica papaya* seed oil in the heart and liver of female wistar rats.

Authors: Afolabi, I. S., Daniels, P.O., Rotimi, S. O., Adeyemi, A.O.

Outlet: Nigerian Journal of Natural Products and Medicine, 16, 11-18.

Date: 2012

Abstract

Increasing attention is been given to *Carica papaya* seed due to its oil rich nature, and its medicinal value. Four feed diets consisting of 3, 5, 7, and 10 % of the oil were composed and examined for its in-vivo effect on lipid and antioxidants status of female wistar rats compared to those fed with 5 % groundnut oil based diet. The feeds were fed into the rats for 32 days, and examined for their lipid profile and antioxidant status in the liver and heart. Free fatty acids were significantly reduced (P<0.05) by 3-10 % diets in the liver, and by 10 % diet in the heart. HMG-CoA/Mevalonate ratio in the liver was significant increased (P<0.05) by the 7-10 % diets. All diets significantly increased (P<0.05) superoxide dismutase, peroxidase, and reduced glutathione in liver. Lipid peroxidation in the heart was significantly increased (P<0.05) by the 3-7 % diets. Lipid peroxidation, and phospholipid in heart were significantly reduced, and increased (P<0.05) respectively by 10 % diets. The biochemical status of rats fed with the *Carica papaya* seed oil based diets generally remained comparable to those fed with the groundnut oil diet in the two organs. The *Carica papaya* seed oil exhibited better antioxidant activities, and health benefits than the commonly consumed groundnut oil.