

Title of Article: In vivo evaluation of lipid and antioxidants qualities of *Carica papaya* seed oil.

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Outlet: Journal of Natural Products, 2011, 4, 125-135

Date: 2011

Abstract

Oil rich *Carica papaya* Linn. (CPL) seed is currently discarded as waste. This research is aimed at ascertaining the lipid and antioxidant qualities of the oil *in vivo* (compared to groundnut oil). Four diets composed from the oil were fed to wistar rats for 32 days. The lipid profile and antioxidant status of the plasma, erythrocytes and brain were examined. The results showed significant reductions ($P < 0.05$) in body weights (of rats fed with the 7-10 % oil diet), erythrocyte peroxidase activity, as well as cholesterol and phospholipids levels in brain. There was also a significant increase ($P < 0.05$) in the reduced glutathione levels in the erythrocyte of rats fed with the 10 % oil diet. The brain weights were significantly increased ($P < 0.05$) by all the CPL seed oil diets. The CPL seed oil quality is comparable to groundnut oil; but it is a better antioxidant source. Small quantities of 5-7 % CPL oil in diets may be appropriate to prevent its deleterious effects on brain.