Fruit Extract of *Thaumatococcus daniellii* Reduces Oxidative Stress in Rats

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**Abstract**

*Thaumatococcus daniellii* (Benn.) Benth is a tropical rhizomatous herb recognized as the natural source of the protein sweetner, thaumatin. Thaumatin is extracted from the fruit arils, which constitutes about 4% of the fruit leaving a large chunk as waste in the extraction process. In this study, we examined the effect of ethanolic extract of *T. daniellii* fruit pulp on some oxidative stress parameters in male Wistar rats. The fruit pulp was extracted with 80% ethanol and a graded concentration was administered orally to the rats for 14 days. The liver and kidney of the rats were harvested; *in-vivo* antioxidant activity and liver histopathology were determined. Result were statistically analysed using one way analysis of variance (ANOVA) supplemented with Duncan multiple range test (DMRT). Results showed a significant (p<0.05) decrease in MDA levels and a significant increase (p<0.05) in SOD activity and GSH concentration compared to the normal and positive controls. Histopathological examinations indicated no pathologic abnormality. The antioxidant boosting activities of the *T. daniellii* fruit extract may be due to the presence of phytochemicals such as flavonoids and tannins. The study suggests the medicinal potential of the fruit in reducing oxidative stress. The fruit could be incorporated into animal feed for its nutritive and phytochemical constituents.

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  Yung-Ming Chang et al., Int J Artif Organs, 2014