

ABSTRACT

PROTECTIVE EFFECT OF ETHANOLIC EXTRACT OF BINAHONG LEAVES (*Anredera cordifolia* (Tenore) Steenis) IN HISTOPATOLOGICAL VIEW OF LIVER DAMAGE INDUCED BY ETHANOL

By

MUHAMAD DWI NUGROHO

In this modern era, free radical spreads everywhere. This is happen in every occurrence of combustion like smoking, cooking, fuel combustion in engines and vehicles. Prolonged ultraviolet exposure, pesticides and other contaminants in our food, even due to excessive exercise, make us no choice but perform protective actions. Therefore this study is conducted to determine the protective effect of binahong leave ethanol extract against liver damage caused by free radicals.

This study is a randomized experimental study using a post-test only control group design controlled. Research subject were 25 male rat (*Sprague dawley*) wich were devided randomly into 5 groups dan given treatment for 10 days. K1 (normal control wich control only given aquadest), K2 (negative control which only given ethanol 10 ml/kgBW), K3 (given ethanolic extract of binahong leaves 50 mg/kgBW and ethanol 50% 10 ml/kgBW), K4 (given ethanolic extract of binahong leaves 100 mg/kgBW ethanol 50% 10 ml/kgBW), K5 (given ethanolic extract of binahong leaves 200 mg/kgBB and ethanol 50% 10 ml/kgBW).

Result show that avarage skor of liver damage on K1 : $0,12 \pm 0,11$; K2 : $1,76 \pm 1,77$; K3 : $1,36 \pm 0,17$; K4 : $1,2 \pm 0,2$; K5 : $0,28 \pm 0,11$. Results of *Mann-Whitney* test between all treatment groups and positive control group show $p < 0.05$. But between the K3 and K4 and K1 and K2 obtained $p > 0.05$. In conclusion, the leaf extract binahong have protective effects at doses of 50 mg / kgBW, 100 mg /kgBW and 200 mg/kgBW.

Keywords: free radicals, binahong, experimental studies, *Anredera cordifolia*
(Tenore) Steenis