

EFFECTS OF VERNONIA AMYGDALINA (BITTER LEAF) ON THE BIO-MARKER OF OXIDATIVE STRESS IN ACETAMINOPHEN INDUCED LIVER DAMAGE OF ALBINO RATS

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ABSTRACT

The effect of daily oral administration of Bitter leaf (*Vernonia amygdalina*) extract (2ml/kg body weight) for 14 days on the alkaline phosphatase, aspartate and alanine aminotransferase activities on rat liver, kidney, Serum and Biomarker Enzymes in acetaminophen-induced-hepatotoxicity in albino rats respectively were investigated. A noticeable change in the biomarker enzyme activities such as (Alanine transaminase (ALT), Aspartate transaminase (AST) and Alkaline phosphatase (ALP) of the albino rats treated with acetaminophen were observed. Induction of acetaminophen caused significant ($P < 0.05$) increase in the activities of AST, ALT and ALP when compared to the control. Oral administration of the extract of Bitter leaf (*Vernonia amygdalina*) reduced the activities of AST, ALT and ALP in rats (Table 1, 2 and 3) when compared to the untreated group (positive control). This is an indication that the extract might prevent liver damage by maintaining the integrity of the plasma membrane and suppressing the leakage of the enzymes through the membrane. The significant ($P < 0.05$) reduction in the activity of AST, ALT and ALP by Silymarin, and Bitter leaf (*Vernonia amygdalina*) extract treatment may be correlated to their hepatoprotective effects.

KEYWORDS: Rat, Liver, Oxidative Stress, Acetaminophen, *Vernonia Amygdalina*

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