



## Hepatoprotective activity of *Hydroleazeylanica* leaf extract on liver damage caused by carbon tetrachloride in rats

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**Abstract:** The hepatoprotective activity of *Hydroleazeylanica* leaf methanolic extract (HZLME) (*Hydrophyllaceae*) at doses of 250 mg/kg and 500 mg/kg were evaluated by carbon tetrachloride (CCl<sub>4</sub>) intoxication in rats. The toxic group which received CCl<sub>4</sub> (0.3 ml/kg) dissolved in 1:1 ratio in olive oil by subcutaneous (s.c.) alone exhibited significant increase in serum alanine amino transferase (ALT), aspartate amino transferase (AST), alkaline phosphatase (ALP) and total bilirubin (TB) levels. It also caused significant (P<0.001) decrease in protein levels. The groups received pre-treatment of HZLME at a dose of 500 mg/kg b.w. p.o. had controlled the AST, ALT, ALP and total bilirubin levels and the effects were comparable with standard drug (silymarin 100 mg/kg b.w.p.o.). The total protein (TP) and albumin (ALB) levels were significantly increased in the animals received pre-treatment of the extract at the higher dose level. The animals received pre-treatment of the extract shown decreased necrotic zones and hepatocellular degeneration when compared to the liver exposed to CCl<sub>4</sub> intoxication alone. Thus the histopathological studies also supported the protective effect of the extract.

**Key words:** CCl<sub>4</sub>, *Hydroleazeylanica*, methanol, extract, hepatoprotective, silymarin.