

## **Phenolic Content, Antioxidant and Hepatoprotective Activities of Sabah Hoya coronaria Blume**

### **ABSTRACT**

A common challenge that regularly results from oxidative stress is hepatic damage. This condition is characterised by a gradual progression from steatosis to chronic hepatitis, fibrosis, cirrhosis, and hepatocellular carcinoma. The study proposed to assess the antioxidant activity and efficacy of Hoya coronaria aqueous extract in preventing CCl<sub>4</sub>-induced hepatic damage in rats. The DPPH technique was used in the study to assess the extract's antioxidant properties. The rats received dosages of 125 and 250 mg/kg body weight of H. coronaria extract for 14 days, followed by CCl<sub>4</sub> exposure. After two weeks, the rats were euthanised for analysis. The results indicated that the extract showed significant antioxidant potential and decreased the impact of CCl<sub>4</sub> on hepatic damage markers such as serum aspartate transaminase and alanine transaminase. Moreover, it increased hepatic reduced glutathione and various antioxidant enzymes while reducing malondialdehyde formation induced by CCl<sub>4</sub>. Additionally, the histopathological analysis demonstrated that H. coronaria extract protected the liver against fatty degeneration and necrosis induced by CCl<sub>4</sub> toxicity. These outcomes suggest that H. coronaria extract could be used to prevent ROS-related hepatic damage.