

Hepatoprotective activity of methanol extract of *Melastoma malabathricum* leaf in rats

ABSTRACT

The present study aimed to determine the hepatoprotective activity of a methanol extract of *Melastoma malabathricum* leaves (MEMM) using two established rat models. Ten groups of rats ($n = 6$) were given a once-daily administration of 10% dimethyl sulfoxide (negative control), 200 mg/kg silymarin (positive control), or MEMM (50, 250, or 500 mg/kg) for 7 days followed by induction of hepatotoxicity either using paracetamol or carbon tetrachloride. Blood samples and livers were collected for biochemical and microscopic analysis. Based on the results obtained, MEMM exhibited a significant ($p < 0.05$) hepatoprotective activity against both inducers, as indicated by an improvement in the liver function test. These observations were supported by the histologic findings. In conclusion, *M. malabathricum* leaves possessed hepatoprotective activity, which could be linked to their phytochemical constituents and antioxidant activity; this therefore requires further in-depth studies.

Keyword: Hepatoprotective activity; In vivo; Leaves; *Melastoma malabathricum*; Melastomaceae; Methanol extract