

Antinociceptive, anti-inflammatory and antipyretic properties of *Melastoma malabathricum* leaves aqueous extract in experimental animals

ABSTRACT

The present study was carried out to establish the antinociceptive, anti-inflammatory, and antipyretic properties of the aqueous extract of *Melastoma malabathricum* leaves in experimental animals. The antinociceptive activity was measured using abdominal constriction, hot-plate, and formalin tests, whereas the anti-inflammatory and antipyretic activities were measured using carrageenan-induced paw edema and brewer's yeast-induced pyrexia tests, respectively. The extract, which was obtained after soaking the air-dried leaves in distilled water for 72 h and then preparing in concentrations of 10%, 50%, and 100% (v/v), was administered subcutaneously 30 min prior to subjection to the above mentioned assays. At all concentrations tested, the extract was found to exhibit significant ($P < 0.05$) antinociceptive, anti-inflammatory, and antipyretic activities in a concentration-independent manner. Our findings that the aqueous extract of *M. malabathricum* possesses antinociceptive, anti-inflammatory, and antipyretic activities supports previous claims on its traditional uses to treat various ailments.

Keyword: Anti-inflammatory; Antinociceptive; Antipyretic; Aqueous extract; *Melastoma malabathricum*