

ANTINOCICEPTIVE EFFECT OF *CRICA PAPAYA* L. LEAF AQUEOUS EXTRACT IN MICE

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Abstract

Papaya or *Carica papaya* L. is a type of herbaceous plant that is widely distributed around the world, mainly in the tropic and subtropic regions. It is a large perennial herb with rapid growth rate and interestingly, the male and female parts exist in different trees. The different parts of *Carica papaya* L. such as the fruit/pulp, leaves, seed, flower, latex and root are used as traditional medicine in many countries around the world. Recent studies showed that papaya leaves exhibited antitumor and anti-inflammatory properties but no scientific studies were carried out to assess the possibility of papaya leaves as potential analgesic agent. Hence, this study was conducted to investigate the antinociceptive property of papaya leaf aqueous extract (CPLA) in mice. The analgesic activity of CPLA was evaluated using the acetic acid-induced writhing test while the effect of extract on motor coordination and fatigue resistance in mice was assessed using the Rotarod performance test. Results showed that the intraperitoneal administration of extract (30, 100 and 300 mg/kg) significantly reduced the number of abdominal constrictions without inducing deficit in the motor activity of mice ($p < 0.05$). In conclusion, *Carica papaya* L. leaf aqueous extract exerted antinociceptive activity by acting through the peripheral nervous system without altering the motor coordination and balance in mice.

Keywords: *Carica papaya* L. leaf, aqueous extract, antinociceptive