

ANTINOCICEPTIVE EFFECT OF *MOMORDICA CHARANTIA* FLESH AQUEOUS EXTRACT IN MICE

**Siti Aminah Yusob, Nor ‘Adilah Makhtar
& ¹Wan Mastura Shaik Mossadeq**

¹*Department of Veterinary Preclinical Sciences, Faculty of Veterinary Medicine
Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia*

Abstract

Momordica charantia (Cucurbitaceae), also known as “Peria” in Malaysia and as “Kerala” in Bengala has traditionally been used in folk medicine for its antidiabetic, anti-inflammatory and antioxidant properties. However, there is little information available regarding the analgesic activity of the plant. Therefore, this study was carried out to investigate the analgesic effect of *Momordica charantia* flesh aqueous extract (MCA) using a chemical model of nociception in mice. The analgesic effect was assessed using acetic acid-induced writhing test, while the possible effect of the extract on motor coordination or fatigue resistance in mice was assessed using the Rotarod performance test. In this study, the intraperitoneal (i.p.) administration of extract (30-300 mg/kg body weight) strongly and dose-dependently inhibited the acetic acid-induced writhing in mice ($p < 0.05$). In addition, results from the Rotarod performance test showed no significant difference between the control and treatment group (300 mg/kg body weight), suggesting that the extract did not produce apparent motor impairment in all the animals tested. Together, the present data suggests that MCA was effective against pain at the peripheral level most probably through the inhibition of cyclooxygenase (COX) and/or lipoxygenase (LOX) and other inflammatory mediators. Furthermore, the analgesic activity induced by MCA is unlikely to be secondary to its depressant and/or muscle relaxant effect.

Keywords: *Momordica charantia*, aqueous extract, antinociceptive