Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

Some Pharmacological Studies on Aqueous and Alcoholic Extracts of *Euphorbia Helioscopia* Plant

Thesis presented

By

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Under Supervision of

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ABSTRACT

The present study aimed to assess some pharmacological activities of *Euphorbia Helioscopia* aqueous and alcoholic extracts to detect the bioactive chemical constituents and to determine the acute oral toxicity. The safety of both extracts was tested by estimation of the acute oral LD_{50} in mice. Tests for the presence of alkaloids, saponins, glycosides, tannins, resins, sterol and/or triterpenes and flavonoids in both extracts were carried out using standard analytical procedures. The antidiarrheal effect was studied using both castor oil-induced diarrhea in rats and charcoal meal tests in mice. The antinociceptive activity was examined using both acetic acid (chemical)-induced abdominal writhing and radiant heat (thermal) tail flick tests in mice. The anti-inflammatory effect was studied using formalin-induced edema and swelling in rat's paw

The results revealed that the acute oral LD_{50} of *Euphorbia Helioscopia* watery extract was 5166 mg/kg b. wt and alcoholic extract was 4833 mg/kg b. wt. in mice, indicating high safety of the plant extract. Both extracts contained active principles as flavonoids, glycosides, tannins, saponins in large concentrations. The results denoted that *Euphorbia Helioscopia* extract have potent antidiarrheal, antinociceptive and anti-inflammatory and antimicrobial activities and this affirm the traditional use of this plant in folk medicine for the treatment of diarrhea, and inflammation and microbial infection.

Keywords: *Euphorbia Helioscopia*; Antidiarrheal; Antinociceptive; Anti-inflammatory.

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