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Some phytochemical, toxicological and pharmacological studies on apricot seed (Armeniacae semen) extracts

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The present study was to investigate phytochemical, toxicological and pharmacological activities of 70%, 99.9% ethanolic apricot seed extracts. The phytochemical screening was done for determination of total phenolics by the Folin-Ciocalteu method, total flavonoids by the aluminum chloride colorimetric method, total carotenoids and amygdalin content using HPLC. The toxicological studies were done for determination of LD_{50} in mice by oral administration of different doses of the extracts. The anti-inflammatory activity was done in vitro by determination of IC_{50} values for inhibition of the enzymes cyclooxygenase 1, 2 (COX-1, COX-2) and in vivo by formalin induced paw edema. The analgesic activity was carried out by writhing test and hot plate method. Phytochemical screening revealed that the amount of total phenolics was 179.4 and 191.2 µg Gallic acid equivalent/g extract and total flavonoids was 226.18 and 509.34 µg rutin equivalent/g extract and total carotenoids was 0.145 and 0.156 mg/g extract and amygdalin was 5.72 g and 10.22 g/100 g extract for 70%, 99.9% ethanolic extract, respectively. The toxicological studies revealed that both extracts has no toxic symptoms on rats in different level of doses from 1 g to 10 g/kg BW. IC₅₀ was 10.4, 0.33 and 7.45, 0.074 and 15.1, 0.049 Um for COX-1 and COX-2 for 70%, 99.9% ethanolic extract, Celecoxib respectively. 70%, 99.9% ethanolic extract and amygdalin exhibited significant analgesic and anti-inflammatory activity in dose of 200 mg/kg BW of both extracts and 50 mg/kg BW for amygdalin.

Biography

Aya Abd Elsalam Abo Elola Shokry has completed her Bachelor's degree in Veterinary Medicine from Cairo University, Egypt. She is currently pursuing her master's degree in veterinary medicine at Cairo University. She is also working as a Demonstrator at Pharmacology Department, Faculty of Veterinary Medicine at Cairo University.

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