

A pharmacological evaluation of aqueous extract of Alhagi maurorum

Abstract

The aqueous extract of *Alhagi maurorum* was evaluated in mice at doses of 125, 250 and 500 μ g/animal, for its anti-inflammatory, analgesic, antioxidant and antibacterial activities. The anti-inflammatory activity was examined for both test extract and (Diclofenac sodium 1 μ g/animal) as a reference drug. The extract and reference drug significantly reduce the thickness of paw edema induced by formalin at dose -dependent manner in both phase I and II. To evaluate the analgesic effect of alhaji water extract and diclofenac sodium(1 μ g/animal), licking frequency was estimated, in the phase 1 (0-5 min.) and in phase II (15-20 min) after formalin administration. Both anti-inflammatory and analgesic effects were compared to that of induced by distilled water (DW). Antioxidant effect was evaluated by estimating the level of MDA and also by Total antioxidant capacity (TAC) compared to acetylsalicylic acid antioxidant activity. The test extract seems to significantly reduce malondialdehyde level and potent antioxidant activity. However all doses of test extract have no antibacterial activity using Cup-plate diffusion method. In conclusion the aqueous extract of *Alhagi maurorum* may be useful in the protection against inflammatory diseases, especially if free radicals are a part of its pathophysiology. However, aqueous extract of *Alhagi* exert no antibacterial effects. More detailed phytochemical studies are necessary to identify the active principles and exact mechanisms of action.