



Effect of *Matricaria recutita* L. aqueous extract on acetic acid-induced ulcerative colitis in adult male rats

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Received: 6 March 2010

Accepted: 2 June 2010

Abstract

Introduction: Ulcerative colitis is a chronic inflammation of the large intestine (colon). In patients with ulcerative colitis, ulcers and inflammation of the inner lining of the colon lead to symptoms such as; abdominal pain, diarrhea, and rectal bleeding. Previous studies have shown that *Matricaria recutita* L. have a series of physiological effects; for example spasmolytic, carminative, antioxidant and anti-inflammatory. In the present study, the effect of this herbal aqueous extract on a model of acute experimental colitis was evaluated.

Methods: Experiments were performed on 5 groups (N=7) of male NMRI rats (230-280g). Three groups were administered orally different doses of extract (10, 20 and 30 mg/kg), fourth group received vehicle and the last considered as control group. For induction of colitis the rats were fasted for 36 hours and then anaesthetized with ether, at the last stage 2 ml of acetic acid 4% was instilled via the anus. After 24 hours the macroscopic study showed the colitis indices.

Results: The aqueous extract of *M. recutita* with doses of (20 and 30 mg/kg) significantly reduced colon weight/length ratio. Extract with the highest dose (30 mg/kg) was effective to decrease as well as inflammation severity and extent. The histopathological studies of colon section showed that, curing or treating effects of extract 10, 20, and 30 mg/kg is mild, moderate and completely, respectively.

Conclusion: It is concluded that *Matricaria recutita* L. aqueous extract was effective in treatment against experimental acute colitis. It can decrease inflammatory indices of ulcerative colitis.

Key words: Ulcerative colitis, *Matricaria recutita*, Acetic acid, Rat

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