Effects of Mumijo Aqueous Extract on Healing of Acetic Acid-Induced Gastric Ulcers in Male Rats

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Gastrointestinal ulcer disease had a remarkable effect on morbidity and mortality until the latest times of the 20th century, when epidemiological trends started to point to a striking reduction in its incidence. In spite of extensive advances, this disease is an important clinical problem, chiefly because of the increasingly extensive use of some drugs [1]. The aim of this study was to assess the preventive activity of mumijo extract against acid acetic-induced gastric ulcer in male rats. The aqueous extract of mumijo was prepared and the groups including (I) Control, (II) sham operated group (0.2 ml of acetic acid) to induce gastric ulcer, (III) mumijo (18.3 g/dl/daily/4 days post acetic acid administration) and (IV) ranitidine group (20mg/kg). The parameters assessed were pH and pepsin levels of gastric contents and gastric histopathology. Ranitidine was used as the reference anti-ulcer drug. The extract inhibited acid acetic-induced gastric ulceration by elevating its pH vs sham group (P < 0.01) and decreasing of pepsin levels compared with ranitidine (P < 0.05). The histopathology data showed that treatment with mumijo extract had a significant protection against all damages to mucosa. It was concluded that mumijo extract has potent antiulcer activity probably acts via a reduction in gastric acid secretion and pepsin levels. The results obtained support the use of this herbal material in folk medicine.

Keywords: Mumijo; Acetic acid; Ulcer; Gastric acidity, Pepsin

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