The Protective Action of Alcoholic Extract Rosmarinus officinalis on Prevention of Gastric Ulceration in Rats


Different research groups have been interested in the study of medicinal plants due to their pharmacological properties. Since literature describes an antiulcerogenic activity of Rosmarinus officinalis (rosemary) ethanolic extract, we decided to investigate the mechanisms involved in its protective property. In this study, rats were treated for three days with rosemary extract 500 and 1000 mg/kg intra-gastric once day and received ethanol (70% v/v, 2 ml/kg intra-gastric) in the last day to induce gastric ulcer. We analysed the index of gastric lesions, some markers of oxidative stress (DCFH-DA oxidation, TBARS levels) and the occurrence of inflammatory process (histopathological analysis). Our results showed a significant protective effect of the rosemary extract in the prevention of ethanol-induced gastric ulcers by decreasing the index of gastric lesions, as well as the lipid peroxidation determined by TBARS levels and reactive oxygen species noticed by DCFH-DA oxidation in comparison to ethanol group. Moreover, the extract meaningfully reduced the inflammatory process, as noticed in the histopathological analysis. Therefore, our results illustrate that the Rosmarinus officinalis extract could be a noteworthy therapeutic measure in the prevention and treatment of gastric ulcers due to its relevant antioxidant and anti-inflammatory properties.

Word keys: ethanol, gastric ulcerations, inflammation, oxidative stress, Rosmarinus Officinalis.

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