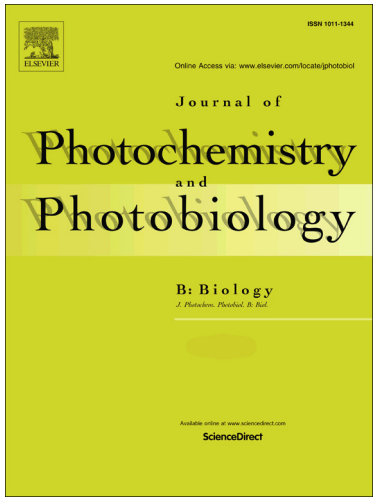

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Gastroprotective Effect of Kefir on Ulcer Induced in Irradiated Rats

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Abstract

The current study was designed to investigate the protective effect of kefir milk on ethanol-induced gastric ulcers in γ-irradiated rats. The results of the present study revealed that treatment with γ-irradiation and / or ethanol showed a significant increase in ulcers number, total acidity, peptic, H^+K^+ATPase, MMP-2 and MMP-9 activities and MDA level, which were accompanied by a significant decrease in the mucus content, the stomach GSH level, the GSH-Px activity and DNA damage. Pre-treatment with kefir milk exert significant improvement in all the tested parameters. Kefir milk exerts comparable effect to that of the antiulcer drug ranitidine. In conclusion, the present study revealed that oral administration of kefir milk prevents ethanol-induced gastric ulcer in γ-irradiated rats that could attribute to its antioxidant, anti-apoptotic and radio-protective activities.

Key words:

Gastric ulcer, Kefir, Ranitidine, Metalloproteinases MMP-2, MMP-9, DNA Fragmentation, H^+K^+ATPase.

1. Introduction

Gastric ulcer is a global problem that affects more than 10% of the world population. Gastric ulcers are induced by various factors, including exposure to stress, alcohol, non-steroidal