

The Protective Effect of Ginger Aqueous Extracts on CCl₄-Induced Hepatic Damage in Mouse

Sungwook Koo, Saekwang Ku², Taeho Oh, Kwangho Jang, Ohdeog Kwon, Seungjoon Kim, Yongsam Kwon and Keunwoo Lee^{1,*}

¹*Department of Veterinary Internal Medicine, College of Veterinary Medicine, Kyungpook National University, Daegu, Korea.*

²*Daegu Haany University, Gyeongsangbuk-do Korea*

Purpose: Ginger (*Zinger officinale* Roscoe) is one of the most commonly used spices around the world and a traditional plant that have been widely used in Chinese and Korea for the treatment of arthritis, motion sickness and gastrointestinal disorder. The purpose of present study is to observe the hepato-protective effect of ginger aqueous extracts on carbon tetrachloride-induced mouse.

Materials and Methods: Mice were divided into three groups of twelve animals each. Experimental groups, in which treated ginger aqueous extracts (500 ml/kg) per oral for 3 days, were administered CCl₄ (4 ml/kg) one time on day 0. Silymarin group, in which treated with Silymarin (50 ml/kg) per orally during 3days before administration of CCl₄, was administered CCl₄ (4 ml/kg). Control group were administered CCl₄ (4ml/kg) only on day 0.

Results: In experimental groups, the AST, ALT levels were significantly ($p < 0.05$) decreased compared to control groups. But BUN, Creatine levels showed not significantly ($p > 0.05$) difference. AST, ALT of experimental group decreased significantly ($p < 0.05$) compared to silymarin group. But BUN, Creatine levels showed not significantly ($p > 0.05$) difference.

Conclusion: The results obtained in this study suggest that ginger aqueous extracts have some substance to protect liver CCl₄ induced liver injury.

Key words: ginger, hepatic damage, silymarin, CCl₄, mouse.

This was supported by Kyungpook National University 2009

*Corresponding author: kwolee@knu.ac.kr