Event Abstract

Hepatoprotective effect of Ginger induced experimentally by Dimethoate and liver injury in adult male rabbits

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Background: Dimethoate is a widely used organophosphate insecticide and acaricide. Ginger extracts have shown a wide array of beneficial role in the regulation of regular liver functions and the treatment of liver hepatotoxicity. This study was carried out to investigate the possible anti-oxidant activity of ginger extract on the dimethoate-induced effect on liver injury of adult mail rabbits. Twenty male New Zealand White rabbits were randomly divided into four groups: (1): control group; (2): rabbits were treated with ginger alone (3): rabbits were treated with dimethoate and (4): rabbits were given dimethoate and ginger. Blood, and liver mushed were using for estimation of liver functions in serum and liver. There were statistically significant elevations in the levels of serum alkaline phosphatase (ALP), alanine transaminase (ALT) and aspartate aminotransferase (AST) activities in plasma and liver as affected by treatment with ginger, dimethoate and/or their combination. Treatment with dimethoate resulted in significant increase in the activities of plasma AST, ALT and ALP and caused significant decrease in the activities of these enzymes in liver. Ginger alone caused significant decrease in the activities of AST, ALT and ALP in plasma and insignificant increase in liver. The presence of ginger with dimethoate caused significant decrease in the induction of AST, ALT, and ALP activities in plasma, and insignificant improvement in liver enzymes.

Keywords: Ginger, dimethoate, alkaline phosphatase, and liver functions.


Presentation Type: Poster Presentation


Received: 11 March 2020; Published Online: 1 Nov 2020.

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