



Biochemical Investigation on Roridin a Toxin and Thymoquinone Antidote on Mouse Liver[#]

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Accepted December 31, 2010

Abstract: To study the effect of roridin a toxin on liver mice, 50 inbreeding male mice were divided into 5 groups (10 mice each). Control group was given only the solvent carrier (DMSO) of roridin A. Group 2 was treated with a single dose of 0.6 mg/kg B.W of roridin A mycotoxin (dissolved in 1.0 ml DMSO) for one week, Group 3 was treated with a single dose (0.6 mg/kg B.W) of roridin A as group 2 for 2 weeks. Group 4 was treated as group 2 but left for 3 weeks, while Group 5 was treated with thymoquinone (TQ) (10 mg/kg B.W) for 6 days daily before treated with the same toxin and left for 1 week. Serum analysis indicated that alkaline phosphatase (ALP) and γ -glutamyl transferase (GGT) were increased after 2 weeks only. Lactate dehydrogenase (LDH) was decreased in all treated groups, while total antioxidant was increased in all treated groups. Ferritin level was also decreased after 1 and 3 weeks after treatment, but α -fetoprotein were increased in 1 and 2 weeks groups following toxin administration and decreased in 3 weeks as well as in group 5. Administration of TQ brought these alterations to normal level. Thus, TQ reversing the toxin activity could be considered as being a potential antidote to roridin A toxicity. TQ is known to act as a protective antioxidant. Histopathological changes of mouse liver coincided with biochemical changes and the results suggest therefore, that hepatotoxicity of the toxin could be reversed by TQ.

Keywords: *Toxin –Thymoquinone- Roridin A - Mouse Liver*

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[#]This paper has been presented at 11-ICCA, 20-22.11.2010, Luxor-EGYPT