

Effect of (+)-cyanidanol-3 on the changes in liver glutathione content and lipoperoxidation induced by acute ethanol administration in the rat

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Acute ethanol administration to rats fasted overnight resulted in a significant decrease in the content of glutathione (GSH) of the liver concomitantly with a partial increase in oxidized glutathione levels, representing a net 38% decrease in total GSH equivalents. In these conditions, liver lipoperoxidation is significantly enhanced. Treatment with (+)-cyanidanol-3 prior to ethanol ingestion was able to reduce by 80% the ethanol-induced depletion in total GSH equivalents and to completely abolish lipoperoxidation. These results indicate that (+)-cyanidanol-3 has a protective effect on the changes in liver GSH levels and lipoperoxidation induced by ethanol, probably related to its scavenging action exerted on free radicals.