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PROTECTIVE EFFECTS OF WHITE TEA EXTRACT AGAINST MERCURIC CHLORIDE INDUCED HEPATOTOXICITY IN MICE

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The present work was aimed to evaluate the potential protective effect of white tea's extract against the liver injury in an experimental model of hepatotoxicity induced by HgCl2 in mice. Histopathological investigations, liver functions and flow. Cytometrical analyses were estimated. The experimental mice were divided into four groups, each of eight mice (each mouse weighed 25 - 30gm): Group 1 was served as the control group, the mice were injected i.p. with saline solution (1ml/ day). In group 2, mice were orally administered with freshly prepared aqueous. Extract of white tea (100 mg / kg / day). Mice of group 3 were i.p. injected with HgCl2 (1mg/ kg / day); The experimental periods of the mentioned three groups were lasted for fourteen days. On the other hand, mice of group 4 were injected i.p. for 14 days with HgCl2 then administered with white tea extract for another 14 days. The aspartate amino transaminase, alanine aminotransferase levels and alkaline phosphatase level are significantly lower ($P<0.05$) in both groups of the control group, and those treated with mercury and white tea extracted than the mice treated only with mercury. Histopathological examination of liver showed that white tea extracts reduced fatty degeneration, cytoplasm vacuolation and necrosis in HgCl2-treated mice. The significant increases in apoptotic cells were observed after the animals exposed to HgCl2 and decreases in the group exposed to HgCl2 and treated with white tea extract. This study suggests that white tea extracts possesses hepatoprotective effects on acute liver injuries induced by mercury, and these results may be related to the anti-oxidant, anti-toxic and anti-apoptotic properties of white tea.