

THERAPEUTIC EFFICACY STUDIES OF OYSTER MUSHROOM IN CHROMIUM INDUCED TOXICITIES IN MICE

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Executive Summary

The research work was conducted to evaluate the adverse effect of chromium (Cr) in adult male mice and ascertained the role of oyster mushroom in alleviating the Cr toxic effects. A total of 40 mice (*Swiss Albino*), four weeks of age were used in the experiment. Mice were examined periodically and after ending of time frame, blood sample was analyzed for hematological and biochemical study. Mice treated with chromium showed a significant ($p<0.01$) decrease in the value of total erythrocyte count (TEC), hemoglobin (Hb), packed cell volume (PCV) and total leukocyte count (TLC) whereas the value of erythrocyte sedimentation rate (ESR) and mean corpuscular volume (MCV) were significantly increased in relation to control. The values of TEC, Hb and PCV in mushroom treated groups were insignificantly differ but the TLC values was slightly increased than healthy control. Administration of mushroom with Cr, the values of TEC, Hb, PCV and TLC values were significantly increased and ESR values was significantly decreased compared to Cr alone treated group. Total proteins decreased significantly, while alanine transaminase (ALT), aspartate aminotransferase (AST), ALP (*alkaline phosphatase*), urea, and creatinine increased significantly ($p< 0.01$) in Cr treated mice indicates the impairment of liver and kidney functions. Biochemical marker of liver profiles showed decrease in co-administration of mushroom along with chromium treated group. Moreover, creatinine and urea in the kidney also decrease while total protein increased significantly in mushroom treated mice.

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