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Effect of arsenic on the kidney function and blood sugar level in Swiss albino mice

Anu Sharma • Vandana • Shahla Yasmin

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Abstract: An experiment was conducted to study the effect of low dose of arsenic trioxide (3 mg/kg BW per day for 15 days) on the kidney function and blood sugar level of swiss albino mice and to study the protective role of garlic and ascorbic acid on the arsenic induced toxicity. It was noted that arsenic did not cause renal dysfunctioning as assessed by estimation of the serum levels of urea, uric acid and creatinine. However a significant rise in the blood sugar level was seen. Further, pathological changes were evident in the kidney. Therefore it is suggested that water containing even low dose of arsenic is hazardous to the health and should not be consumed. Protective roles of ascorbic acid and garlic were not found in our study.

Keywords: Arsenic trioxide, ascorbic acid, garlic, kidney function, blood sugar.