

# TOXIC EFFECTS OF SILK DYE EFFLUENT ON KIDNEY OF SWISS ALBINO MICE, MUS MUSCULUS

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## Abstract

The silk dyeing effluents waste is one of the most potential harmful chemical liberated in the environment in an unexpected manner, associated with several reproductive, hepatic and renal problems that damages both functionally and structurally. The present study was undertaken to investigate of the toxic effects of the silk dye waste on kidneys of swiss albino mice, (*Mus musculus*). Five set of experimental animals including control (mice) were treated orally intragastrically and effects was observed at different concentration of silk dye effluent waste i.e. 25% 50 % 75 % and 100% in different time response (15th, 30th, 45th and 60th days). The assimilation of dyeing effluent in body system was supported by biochemical variables. The kidney section showed progressive damage which increased with the duration of exposure period than increase in effluent concentration. Renal histopathological study revealed that experimental mice suffer from severe renal injury. Microscopic histopathological examination of haematoxylin-eosin stained kidney section showed chronic toxicological changes. Some changes includes glomerular degeneration, tubular collapse, haemorrhage, hydropic changes, glomerular shrinkage, infiltration and compressed blood vessel. The findings indicated that silk dye effluent because a marked alteration in renal profile and their effect became more risky at higher dose. The present investigation may be a valuable step in the toxicity assessment of silk dye effluent in swiss albino mice (*Mus musculus*).

## Key words

Silk dye waste effluent, Kidney, Histo-pathology, Swiss albino mice, *Musmuscu/us*

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