

ABSTRACT

The present study was designed to investigate the protective effect of *Withania somnifera* and *Aloe barbadensis* in pesticide-induced toxicity. Quinalphos (QP) at a dose of 14mg/kg body weight in male wistar rats for 15 days produced a reversible type of liver and kidney necrosis characterized by altered levels of various biochemical enzymes and endogenous antioxidants. Treatment with *W. somnifera* and *A. barbadensis* extracts resulted in a significant protective effect in QP-intoxicated hepatic and renal damage, as evidenced by diminished levels of SGOT, SGPT, ALP, ACP, LDH, total bilirubin, direct bilirubin and creatinine, and enhanced levels of total protein and albumin which were affected by quinalphos intoxication. Elevated levels of malondialdehyde (MDA) and lipid peroxidation in liver and kidney also significantly declined after the treatment with the extracts. Further, the reduced glutathione (GSH) levels and superoxide dismutase (SOD) activity also returned to normal. This clearly indicates that the ethanolic extract of *W. somnifera* and aqueous extract of *Aloe barbadensis* can afford protection from QP-induced toxicity.