

Moringa oleifera enhances liver antioxidant status via elevation of antioxidant enzymes activity and counteracts paracetamol-induced hepatotoxicity.

ABSTRACT

This study investigated the role of antioxidant enzyme system following crude hydroethanolic extract of *Moringa oleifera* leaves (MO) in acute paracetamol (PCM) induced hepatotoxicity. Hydroethanolic extract (80%) of MO (200 mg/kg and 800 mg/kg; p.o) was pre-administered before a single oral dose of 3 g/kg PCM intoxication to male Sprague-Dawley rats. Pre-treatment of the extract was found to have reduced lipid peroxidation level when compared to the group treated with PCM only. The level of glutathione peroxidase (GPx), glutathione-S-transferase (GST) and glutathione reductase (GR) was restored to near normal in groups that were pre-treated with MO. Histopathological studies have further confirmed the hepatoprotective activity of MO compared to group treated with PCM only. The results obtained were comparable to silymarin (200 mg/kg; p.o). The MO extract was found to have significantly protected the liver against toxicity following PCM intoxication by enhancing the level of antioxidant enzyme activity.

Keyword: Aetaminophen; Hepatoprotective; Hepatotoxicity; *Moringa oleifera*; Paracetamol.