Hepatoprotective and antioxidant action of Moringa oleifera lam. againsts acetaminophen induced hepatoxicity in rats.

ABSTRACT

This study is conducted to investigate the possible hepatoprotective action of Moringa oleifera Lam. (MO), a high value medicinal plant against a single high dose of APAP induced hepatotoxicity. Male Sprague Dawley rats were dosed with APAP (3000 mg kg-1 body weight; p.o.) to induce hepatocellular damage. In rats that were pretreated with MO (200 and 800 mg kg-1, p.o.) for 14 days prior to APAP treatment there was a reduction of liver enzymes (ALT, AST and ALP) and also the restoration of glutathione level. The biochemical results showed parallel finding with the histopathological analysis in which liver sections obtained from rats pretreated with MO, the damage was blocked. Intriguingly, MO alone has significantly elevated the level glutathione compared to the control group. The findings has suggested that Moringa oleifera Lam. is a promising product in protecting the liver against APAP induced liver injury via the restoration and elevation of glutathione level in the liver.

Keyword: Acetaminophen; Glutathione; Hepatoprotective; Hepatotoxicity; Moringa oleifera; Paracetamol.