

Toxicity effect of *Nigella sativa* on the liver function of rats.

ABSTRACT

Purpose: The aim of this study was to determine the toxic effect of *Nigella sativa* powder on the liver function which was evaluated by measuring liver enzymes and through histopathological examination of liver tissue. **Methods:** Twenty four male Sprague Dawley rats were allotted randomly to four groups including: control (taking normal diet); low dose (supplemented with 0.01 g/kg/day *Nigella sativa*); normal dose (supplemented with 0.1 g/kg/day *Nigella sativa*) and high dose (supplemented with 1 g/kg/day *Nigella sativa*). All of supplements administered in powder form mixed with rats' pellet for 28 days. To assess liver toxicity, liver enzymes measurement and histological study were done at the end of supplementation. **Results:** The finding revealed that there was no significant change in serum alanine aminotransferase (ALT) and aspartate aminotransferase (AST) between treatment groups. Histopathological study showed very minimal and mild changes in fatty degeneration in normal and high doses of *Nigella sativa* treated group. Inflammation and necrosis were absent. **Conclusion:** The study showed that supplementation of *Nigella sativa* up to the dose of 1 g/kg supplemented for a period of 28 days resulted no changes in liver enzymes level and did not cause any toxicity effect on the liver function.

Keyword: Enzyme; Function; Liver; *Nigella sativa*; Rat; Toxicity