

Heenbowitiya (*Osbeckiaoctandra*) prevents carbon tetrachloride (CCl₄)-induced liver injury in ICR mice

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Liver is one of the most vital organs that functions in metabolism and detoxification of substances absorbed in the body. Hepatocyte has high metabolic rate, and therefore the liver is more prone for injury caused by chemicals or infectious agents that lead to alter the liver metabolic functions, which results in liver fibrosis and subsequent liver failure. In western medicine, treatments for reversing liver injury and liver diseases are limited. Alternatively, there is a higher demand at present for traditional herbal medicines which were used for over thousands of years. HeenBoviiya (*Osbeckiaoctandra*) is an endemic plant of Sri Lanka, and considered to have certain medicinal value against liver diseases. Present study was conducted to evaluate the hepatoprotective effect of leaf preparation of *O.octandra* on carbon tetrachloride (CCl₄) induced liver fibrosis in ICR mice. Four-month old, sixty male ICR mice were divided in to four groups and group 1 was given Leaves Preparation (LP) only (0.5g DM/Kg BW, orally), group 2 was given CCl₄ only (1 ml/kg BW, intraperitoneally), group 3 was given LP (0.5g DM/Kg BW, orally) and CCl₄ (1 ml/kg BW, intraperitoneally). Group 4 (control group) was only given equal amounts of distilled water, orally. All treatments were carried out twice aweek for 8 weeks. Body weight was measured once a week during the experimental period. Liver weight and liver samples were taken at 2, 4, 6 and 8 weeks after the experiment periods and histopathological examination was performed in the formalin fixed liver tissues. The livers from CCl₄ treated group showed severe hepatocyte damage and fibrosis-indication in liver injury. However, livers of the animals treated with CCl₄ and LP treatments showed normal hepatic architecture similar to control group. Thus, the present data suggest that *O.octandra* LP has a protective effect against CCl₄-induced liver injury in mice advocating therapeutic use of *O.octandra* liver diseases.

This study was funded by the National Research Council of Sri Lanka (NRC 15-096)