

ABSTRACT

This study is meant to observed the hepatoprotective and anti-cholestatic effect of Milk Thistle on Alpha-naphthylisothiocynate (ANIT) induced hepatic injury in mice. Cholestasis is the hindrance in bile flow from liver to intestine followed by the retention of bile salts in liver and reductions of bile salts in intestine that result in oxidative stress, inflammation, apoptosis and fibrosis. Cholestasis is also lined with other various diseases like gallstones, obstructive jaundice, cystic fibrosis and hepatitis. Present study deals with the study of anti-cholestatic properties of Milk Thistle on ANIT administrated mice models by measuring LFTs and expression of BSEP, Ntcp and FXR. Mice were randomly divided in different experimental groups receiving different dose. One group of mice is treated with Milk Thistle plant extract at the concentration of 600 mg/kg, other group was treated with UDCA at the concentration of 15 mg/kg. Other group was ANIT treated group and Control group. Control group was administrated with saline. ANIT was given to all groups except Control group at the concentration of 75 mg/kg 48 hours before dissection. Liver and blood samples were collected and subjected to histological analysis, qPCR and liver functioning tests. Bilirubin, ALT, AST and ALP levels were estimated and hepatocytes were examined under microscopes. Results showed the anti-cholestatic activity of Milk Thistle plant extract because the group treated with Milk Thistle plant extract showed comparatively less hepatic damage.