

## ABSTRACT

Cholestasis is disturbance in bile flow from hepatocytes to the gut. It results in bile acid accumulation in the liver, which causes oxidative stress, inflammation, apoptosis, and fibrosis of hepatocytes. The current study aims to assess *Terminalia arjuna's* anti-cholestatic capability in alpha-naphthylisothiocyanate (ANIT)-induced cholestatic mouse models. The animals were divided three groups at random. First group of mice was given standard diet and served as normal control. Second group was given vehicle (saline) for three weeks. Third group was treated with plant extract (100mg/kg) via oral gavage for three weeks. After three weeks the mice of second and third groups were given single dose of ANIT (75mg/kg). After 48 hours of ANIT treatment, the mice were sacrificed. After dissection, blood and liver samples were obtained. Bilirubin, AST, ALT, and ALP levels were measured in the blood. The results showed that bilirubin, AST, ALT, and ALP levels were considerably higher in the ANIT group than in the control group. The *Terminalia arjuna*-treated group, on the other hand, demonstrated that levels of these parameters were comparable to the control group, demonstrating that *Terminalia arjuna* protects mice from ANIT-induced cholestasis. Histological tests supported these findings, as revealing that liver cell integrity was altered in ANIT-treated animals. Hepatocytes in plant-treated mice, on the other hand, were normal. In conclusion, our findings indicated that *Terminalia arjuna* had hepatoprotective action against ANIT-induced cholestasis.