

Role of vitexin and isovitexin in hepatoprotective effect of *Alysicarpus monilifer* Linn. against CCl₄ induced hepatotoxicity

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Abstract

Acute toxicity tests were conducted as per OECD guidelines on *Alysicarpus monilifer* Linn., a widely used plant in the north coastal districts of Andhra Pradesh, India, to treat various liver disorders and other common ailments. The methanolic extract of the whole plant at dose levels of 200 mg/kg, 400 mg/kg and 800 mg/kg b.w., was tested in CCl₄ induced hepatotoxicity rats followed by histopathological examination of the isolated livers of the control and the treated groups. The potential effects in protecting liver function by reducing the elevated levels of various serum biochemical parameters (SGOT, SGPT, ALP & T. Bil.) in a dose dependent manner, reducing oxidative stress, and histopathological alterations in the rat model of CCl₄-induced liver damage was demonstrated. This first report of hepatoprotective activity of *Alysicarpus monilifer* throws light on attenuation of hepatotoxic effects of CCl₄ challenged rats by membrane stabilization through antioxidantation

Keywords: *Alysicarpus monilifer*, Carbon tetrachloride, Hipatotoxicity;

Introduction

Alysicarpus monilifer Linn. (Fabaceae) grows throughout in India, Pakistan and Ethiopia in sandy and sub-sandy soils and in lawns especially along the coast (Nasir and Ali, 1977; Varadarajan, 1985). The plants are erect or prostrate seasonal herbs, leaves unifoliate, flowers produced in simple racemes, fruits constricted between seeds. *Alysicarpus monilifer* has been used in indigenous system of medicine. In India, the roots are used for the treatment of leprosy and urinary troubles. The decoction of root is being used for cough and boiled leaves are used as purgative. Ether and ethanolic extracts of leaves of *Alysicarpus vaginalis* showed antiproliferation activity against tumor cells (Rathi et al., 2010). The herb is credited with antipyretic, antiperiodic and expectorant properties (Varadarajan, 1985). The leaves are