

**HEPATO PROTECTIVE POTENTIALITY OF *Acacia catechu* Linn., AGAINST AMOXICILLIN INDUCED TOXICITY IN ALBINO RATS**

**G. Priyadharshini and P. Mozhiyarasi\***

Department of Biochemistry, S.T.E.T Women's college, MANNARGUDI-614001

Hepatoprotective activity of *Acacia catechu* Linn., was evaluated against Amoxicillin induced hepatic damage in male albino rats. Amoxicillin induced hepatic damage was well manifested by significant increase in the activities of ALT,AST,ACP,ALP in serum and enhanced lipid peroxidation. On the other hand, the activities of SOD, CAT and GSH level in liver tissue were lowered. The oral administration of ethanolic extract of *Acacia Catechu* L., reversed these altered parameters to normal levels indicating the antioxidative and hepatoprotective efficacy of *Acacia Catechu* linn. against Amoxicillin induced liver injury.

**INTRODUCTION**

Oxidative stress is being suggested as the root cause of aging and various diseases such as Cancer, Cardiovascular diseases, diabetes mellitus, liver diseases, brain dysfunction. (James *et al.*, 2003). Excessive production of reactive Oxygen species (ROS) plays an important role in the pathogenesis and Progression of various diseases involving different organs. Lipid Peroxides produced from unsaturated fatty acids via free radicals cause toxic effects and promote the formation of additional free radicals in the chain reaction. (Karunakar Hegde *et al.*, 2009)

Hepatic system is the major Organ system involved in the metabolism, detoxification and excretion of various endogenous and exogenously administered / ingested substances like xenobiotics, pollutants, etc., This Physiological activity of the liver results in the generations of highly reactive free radicals, which covalently bonds with membrane lipids causing lipid peroxidation. Since the liver is involved in various biochemical reactions, it is prone to be attacked by the free radicals and necrosis results.

Though the modern medicinal system has grown phenomenally, the drug for treating hepatic disease is still a dream. Hence, people are looking at the traditional system of medicine for remedies to hepatic disorders. (Absar Ahmed Qureshi *et al.*, 2006)

Amoxicillin is a penicillin antibiotic. Amoxicillin is a known drug of having adverse hepatic effects, mainly by three mechanisms, Cholestasis, hepatocellular injury and mixed mechanisms. It can produce a wide range of liver injury including intra hepatic cholestasis without hepatitis, acute hepato cellular injury, and cholestatic hepatitis with a hepato cellular necrosis. (Isabel Lucena. M *et al.*, 2006).

Plant synthesizes bioactive compounds, most of these are flavonoids or

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\* Corresponding Author