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HEPATOPROTECTIVE EFFECT OF AQUEOUS – METHANOL EXTRACT OF *CORDIA DICHOTOMA* IN EXPERIMENTAL PARACETAMOL INDUCED HEPATITIS IN RABBITS

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ABSTRACT : Hepatic dysfunction is a great health trouble. The aim evaluate the hepatoprotective activity of aqueous – methanol (30:70%) extract of *Cordia dichotoma* fruit against paracetamol – induced hepatic damage in rabbits. The study was conducted on 16 mature, male rabbits, split into four sets of 4 in each. Rabbits of 1st group (control group), 2nd group treated with extract (30:70%) at300 mg / kg for 9 days, then hepatitis was induced via intraperitoneal injection of paracetamol 250mg/ kg b.wt. for 9 days, the treatment with extract continue till end of experiment. . Rabbits of 3rd group were left without treatment in the first 9 days then paracetamol hepatitis induced at a dosage 250 mg/ kg. b.wt. and treated with extract at 300 mg / kg b.wt. for 9 days. In 4th group hepatitis was induced with paracetamol (250 mg / kg b.wt.) for 9 day, without treatment with the extract. All animals in day 18th were euthanized to collect blood for estimation of serum enzymes (RBS, ALT, AST, TSB, TSP, BUN, Creatinine), in addition for histopathological examination. Heart and respiratory rates, body temperature and weight, Hb and PCV, and clotting, bleeding time, total and differential leucocytes counts were taken for three times. The results revealed that the levels of biochemical parameters were elevated in paracetamol intoxicated animals when compared with the control group. The extract at 300 mg /kg b.wt. exhibit significant reduction in biochemical parameters. Hepatoprotective activity was promoted by histopathological changes. In conclusion, cordia fruit aqueous – methanol extract possess significant hepatoprotective influence against paracetamol – induced hepatotoxicity.

Key words : Hepatoprotective, aqueous – methanol extract, *Cordia dichotoma*, hepatitis, rabbits.

INTRODUCTION

The liver is an indispensable organ of fundamental prominence participatory in the maintenance of metabolic functions, as well as, detoxification of the endogenous or exogenous risk such as viral infections, chronic alcoholism, xenobiotics and drugs (Bhardwaj *et al*, 2011; Okaiyeto *et al*, 2018). Natural products of the extracts of plant has received great attention in recently years due to their various pharmacological actions including as hepatoprotective effect and antioxidant activity (Brai *et al*, 2014; Wang *et al*, 2004).

Hepatic disease is a dangerous problem in developing states and as a cause of mortality and or morbidity at all the world. Recently recorded that the 10% of world population is infected with hepatic diseases included as a liver cirrhosis, hepatitis, fibrosis, alcoholic steatosis and cancer (hepatocellular carcinoma) (Marcellin and Kutala, 2018). Morbidity and death rate due to hepatic diseases is a great public health problem throughout the world (Zhang *et al*, 2013). An essential role for medicinal plants in controlling liver disorders in the developing countries for rudimentary health sponsor due to they are cheap, possession minimal or no side influence, and its easily availability in nature (Anand and Lal, 2016; Verma and Singh, 2008). Medical plants have been utilized as exporter of medicine in substantially in each cultures. over the prior decade, expanded use of traditional medicine ™ has globally and is winning popularity. More than 40% of modernistic medication are derived from of natural exporter, utilized either the natural substance or by a synthesized version (Dar *et al*, 2017). Within the recent years, thither have been furthermore mounting attention in alternate medication ,as well as, the using of natural production, particularly them extracted from of plant (Balogun *et al*, 2019). Considered plant extracts as a most of the attractive exporter of recent medication and have been appeared to give hopeful results for the handling of gastric ulcer (Vismaya *et al*, 2011). Therefore, to justify the traditional claims the present seeking was undertaken to explore out if aqueous - methanol extract of Cordia