Pharmaceutica Analytica Acta
ISSN: 2153-2435
OPEN ACCESS Freely available online
Editorial

The Hepatoprotective Impact and Component of Lotus Leaf on Liver Injury Initiated by Genkwa Flos

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INTRODUCTION

As a customary Chinese medication, lotus leaf was accounted for to have critical hepatoprotective impact. To investigate the hepatoprotective system of lotus leaf, a quick and solid UPLC-MS/MS strategy was led to all the while decide six explicit endogenous substances including 5-oxoproline, phenylalanine, tryptophan, C18-phytosphingosine, lysophosphatidylcholine (16 : 0) and lysophosphatidylcholine (18 : 1). With the assistance of HPLC–FT-ICR-MS, the synthetic constituents of brutes leaf remove were clarified. By watching histopathological changes and deciding hepatotoxicity-related biochemical markers, rodent model of liver injury was created and the hepatoprotective impact of lotus leaf was confirmed. With the created UPLC-MS/MS strategy, six endogenous metabolites identified with hepatotoxicity were observed to explore the hepatoprotective instrument of lotus leaf. In the subjective investigation, a sum of twenty mixes including ten flavonoids, nine alkaloids and one proanthocyanidin were distinguished. In light of the consequences of deciding six endogenous metabolites identified with hepatotoxicity, it was anticipated that the hepatoprotective system of lotus leaf may be identified with glutathione digestion, phenylalanine digestion, tryptophan digestion, sphingolipid digestion and phospholipid metabolism.DHC rodents exhibited critical hyperglycaemia, dyslipidemia, aggravations in endothelial and platelet initiation markers [1]. AZ or LOS organization exhibited hypoglycaemic and hypolipidemic impacts. VCAM-1 and sE-selectin (Endothelial capacity markers) alongside CD63 (Platelet enactment marker) demonstrated noteworthy reduction when contrasted with control gathering. AZ organization applied minimal conspicuous impacts than that of LOS, while their blend showed amazing changes contrasted with monotherapy. Histopathological discoveries were in consent to certain degree with the biomarkers results. The protective effect of Diospyros lotus leaf extract (DLE) against acetaminophen (APAP)-induced acute liver injury in mice. Administration of DLE significantly attenuated the levels of serum aspartate aminotransferase, alanine aminotransferase, and liver lipid peroxidation in APAP-treated mice. Antioxidant activity of Nelumbo nucifera leaves (NU) extracts was assayed by the methods of scavenging 1,1-diphenyl-2-picrylhydrazyl (DPPH), 2,2′-azino-bis (3-ethylbenzo-thiazoline-6-sulfonicacid) (ABTS) radical and ferric reducing antioxidant power (FRAP) in vitro [2,3]. By intraperitoneal injection carbon tetrachloride (CCl4) to establish acute liver injury model in mice, the levels of Glutamic-pyruvic transaminase (GPT), glutamic-oxaloacetic transaminase (GOT), superoxide dismutase (SOD) and the content of and maleicdialdehyde (MDA) were detected to evaluate hepatoprotective effect of NU using corresponding test kit. Histopathological examination showed that DLE treatment decreased the incidence of liver lesions in APAP-treated mice. DLE treatment markedly increased superoxide dismutase, catalase, glutathione peroxidase activity, and glutathione levels in APAP-treated mice. Furthermore, DLE treatment significantly suppressed the production of proinflammatory factors such as the nitric oxide, IL-6, TNF-α, and iNOS in APAP-treated mice. These results suggest that DLE protects the liver from APAP-induced hepatic injury via antioxidant and antiinflammatory effects.

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Received: October 13, 2019; **Accepted:** October 14, 2020; **Published:** October 21, 2020

Citation: David A (2020) The Hepatoprotective Impact and Component of Lotus Leaf on Liver Injury Initiated by Genkwa Flos. Pharm Anal Acta 11: e208. doi: 10.35248/2153-2435.20.11.e208.

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