

HEPATOPROTECTIVE EFFECT OF *Phyllanthus amarus* AND ITS ANTI-OXIDANT POTENTIAL: A REVIEW

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Liver is one of the vital organs that maintains the overall health by performing wide range of functions which include detoxification foreign substances from the body. But, excessive or prolonged exposure to toxic substances can overwhelm the ability of liver to detoxify and counteract oxidative stress and thus, excessive ROS leads to oxidative stress which, in turn, damage the liver. Many synthetic drugs to treat liver diseases was also found to cause further damage to the liver. Therefore, medicinal plants rich in antioxidant properties are widely used to protect the liver from harmful toxic effect and to maintain healthy liver. *Phyllanthus amarus* known for rich anti-oxidant potential, has been used extensively in Unani System of Medicine to treat liver diseases. The objective of the present review was to compile the data on phytochemicals possessing antioxidant property that contribute to the hepatoprotective effect of *P. amarus* and to scientifically justify its hepatoprotective effect is consistent with its traditional uses in treating of liver diseases. The results showed that the extracts of the *P. amarus* were effective against oxidative stress caused by numerous hepatotoxins and thus, prevent hepatic damage. Further, the results suggested that active compounds of *P. amarus* such as phyllanthin, hypophyllanthin, flavonoid and phenolic compounds play potential role in preventing oxidative stress through free radical scavenging mechanism. The study also showed that there is a good correlation between antioxidant activity and the total chemical components present in *P. amarus*. Therefore, it is apparent that *P. amarus* possessing hepatoprotective activity can be effectively utilized in the management of liver toxicity.

Keywords: Liver diseases, Hepatotoxins, Hepatoprotective, Anti-oxidant, *Phyllanthusamarus*