

Antioxidant and antihepatotoxic activity of ethanol extract of *Solanum indicum* Linn berries

Bhuvaneswari B¹, Suguna^{2*}

¹ Department of Biotechnology, Dr.MGR Educational & Research Institute, Maduravoyal, Chennai, India.

^{2*} Department of Biochemistry, Central Leather Research Institute, Adyar, Chennai, India.

Corresponding author email: bhuvaneswari.balaraman@gmail.com

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Post Graduate & Research Departments of Biochemistry, Microbiology, Biotechnology and Bioinformatics, Mohamed Sathak College of Arts & Science, Sholinganallur, Chennai-600119, India.

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ABSTRACT

In the present investigation, the antioxidant and antihepatotoxic activities of the crude ethanolic extract of *Solanum indicum* Linn berries were studied. The total antioxidant activity of herbal ethanolic extract was investigated in linoleic acid emulsion system. Total phenolic and flavonoid content of the extract also determined by a colorimetric method. The ethanolic extract of *S. indicum* Linn berries also showed potent antihepatotoxic activity against carbon tetrachloride –induced acute toxicity in rat liver. The extract at a dose level of 200 mg/kg body weight were administered to rats orally once daily for 14 days. The degree of liver protection was determined by estimating the levels of serum marker enzymes such as ALT, AST, ALP, ACP and LDH. The biochemical parameters like total protein, total bilirubin, total cholesterol, triglycerides and urea were also estimated. Silymarin at a dose level of 50 mg/kg was used as standard. The results revealed that *S. indicum* Linn berries extract has notable inhibitory activity on peroxides formation in linoleic acid emulsion system in a dose-dependent manner. There was marked elevation of serum marker enzyme levels in CCl₄ treated rats, which were restored towards normalization in these drug treated animals. The biochemical parameters were also restored towards normal levels. The results of this study strongly indicate that the hepatoprotective effect of the plant extract is possibly related to its marked antioxidant activity.