



Journal of Hospital Pharmacy
An Official Publication of Bureau for Health & Education Status Upliftment
(Constitutionally Entitled as Health-Education, Bureau)

The synergistic hepatoprotective effect of herbal extracts of *Thymus vulgaris* and *Solanum lycopersicum* in paracetamol induced hepatotoxicity in rats

*Amarjeet Kaur, ¹Munish Goyal, ²Anil Kumar, ³Diksha Kaushal, ⁴Sarbjot Singh and Nasira Abbasi ⁵

^{*4}Department of Pharmacology, Aakash Institute of Medical Sciences, Nalagarh, Solan, H.P. 174101.

¹Department of Pharmacognosy, Aakash Institute of Medical Sciences, Nalagarh, Solan, H.P. 174101.

^{2,3}Department of Pharmacology, L.R. Institute of Pharmacy, Oachghat, Solan.H.P. 173223

⁵Department of Pharmaceutical Chemistry, Aakash Institute of Medical Sciences, Nalagarh, Solan, H.P. 174101

Email Id: serviceheb@gmail.com

Abstract

Background

Objective:

To study the synergistic hepatoprotective effect of herbal extracts of *Thymus vulgaris* and *Solanum lycopersicum* in paracetamol induced hepatotoxicity in rats.

Materials and Methods:


The study was carried out on wistar rats and were fed high fat diet for 15 days. Extract of plant *Thymus vulgaris* and *Solanum lycopersicum* in combination was administered in dose of 100 and 200 mg/kg, p.o. for 7 days after timeline of acclimation. On the 7th day, one dose of the toxicant (paracetamol) was given enteral route that is oral route to each group, except the saline or water control group 1 h after test drug administration. Serum biochemical parameters (SGPT, SGOT, ALP, Serum cholesterol, Serum total bilirubin) which are also known as markers of liver toxicity are determined in order to evaluate the hepatoprotective activity.

Results:

There was a significant reduction in the levels of serum biochemical parameters i.e. Serum glutamate pyruvate transaminase (SGPT) or (ALT), Serum glutamate oxaloacetate transaminase (SGOT) or (AST), Serum alkaline phosphatase (ALP), Serum cholesterol, Serum total bilirubin significantly has compared to paracetamol treated group. Treatment with lower dose and higher dose of selected plant extracts produced dose dependent reduction in PCM induced rise in bio chemical parameters. The

Extract of plant *Thymus vulgaris* and *Solanum lycopersicum* possesses hepatoprotective properties in paracetamol induced groups. The animals were sacrificed & histopathological study was done.

Key Words: hepatoprotective activity, SGOT, PCM.

Access this Article Online	 Quick Response Code
Website: http://www.journalofhospitalpharmacy.in	
Received on 09/05/2023	
Accepted on 17/05/2023 © HEB All rights reserved	