Activity of Picrorhiza kurroa against Hepatitis C through deactivation of Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL)

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Abstract: An in-silico study was performed to determine the activity of Picrorhiza kurroa against Hepatitis C. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL) enzyme. It was found that Curcumin helped to prevent Hepatitis C.

Introduction: Picrorhiza kurroa is known for its medicinal activities. Picrorhiza kurroa is a well-known herb in the Ayurvedic system of medicine and has traditionally been used to treat disorders of the liver and upper respiratory tract, reduce fevers, and to treat dyspepsia, chronic diarrhea, and scorpion sting.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Eudicots
Order	Lamiales
Family	Phyllanthaceae
Genus	Picrorhiza
Species	kurroa

Major phytochemicals present in the plant are:

a. Luteolin
b. Isorhamnetin
c. Curcumin
d. Ascorbic acid

One of the major enzymes required for the survival of the organism causing Hepatitis C is Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.

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