Activity of Phyllanthus urinaria 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 Phyllanthus urinaria 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 Limoene and Daidzein helped to prevent Hepatitis C.

Introduction: Phyllanthus urinaria is known for its medicinal activities. It is used in folk medicine as a cure to treat jaundice, herpes, diabetes, malaria, and liver diseases.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Malpighiales
Family	Phyllanthaceae
Genus	Phyllanthus
Species	urinaria

Major phytochemicals present in the plant are:

a. Limonene
b. Naringin
c. Genistein
d. Daidzein

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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