Activity of Hypericum perforatum against Hepatitis C through deactivation of Hepatitis C Virus protease

(3M5O)

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Abstract: An in-silico study was performed to determine the activity of Hypericum perforatum against Hepatitis C. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Hepatitis C Virus protease

(3M5O) enzyme. It was found that Azadirichtin helped to prevent Hepatitis C.

Introduction: Hypericum perforatum is known for its medicinal activities. It is used tropically for the treatment of wounds, abrasions, burns, sunburns and inflammatory skin disorders. Its use in wound healing could be justified with its anti-inflammatory, antimicrobial and astringent effects.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Malpighiales
Family	Hypericaceae
Genus	Hypericum
Species	perforatum

Major phytochemicals present in the plant are:

a. Pelargonidin
b. Limonene
c. Rutin
d. Azadirichtin

One of the major enzymes required for the survival of the organism causing Hepatitis C is Hepatitis C Virus protease

(3M5O) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.