

Activity of *Cyperus rotundus* against Herpes through deactivation of Herpes virus fusion regulator complex gH-GI (3M1C)

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Abstract: An in-silico study was performed to determine the activity of *Cyperus rotundus* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Herpes virus fusion regulator complex gH-GI (3M1C) enzyme. It was found that Pelargonidin helped to prevent Herpes.

Introduction: *Cyperus rotundus* is known for its medicinal activities. It is a medicinal herb traditionally used to treat various clinical conditions at home such as diarrhea, diabetes, pyresis, herpes, inflammation, malaria, and stomach and bowel disorders.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Poales
Family	Cyperaceae
Genus	<i>Cyperus</i>
Species	<i>rotundus</i>

Major phytochemicals present in the plant are:

- a. Ellagic acid
- b. Gallic acid
- c. Pelargonidin
- d. Limonene

One of the major enzymes required for the survival of the organism causing Herpes is Herpes virus fusion regulator complex gH-GI (3M1C) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.