

Activity of *Phyllanthus emblica* against Herpes through deactivation of Herpes Simplex virus type 1 DNA polymerase (2GV9)

Subhasmita Mishra¹, Dojalisa Sahu²

¹subhasmitasm86@gmail.com

²dojalisa.sahu@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Phyllanthus emblica* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Herpes Simplex virus type 1 DNA polymerase (2GV9) enzyme. It was found that Malvidin helped to prevent Herpes.

Introduction: *Phyllanthus emblica* is known for its medicinal activities. Seeds of the fruits are used in treatment of asthma, herpes and bronchitis. The leaves are used as fodder. Alcoholic extract of the fruit is anti-viral.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Malpighiales
Family	Phyllanthaceae
Genus	<i>Phyllanthus</i>
Species	<i>emblica</i>

Major phytochemicals present in the plant are:

- Malvidin
- Myricetin
- Ursolic acid
- Ascorbic acid

One of the major enzymes required for the survival of the organism causing Herpes is Herpes Simplex virus type 1 DNA polymerase (2GV9) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.