

Activity of *Atlantia* sp. against Herpes through deactivation of Herpes Simplex virus type 1 DNA polymerase (2GV9)

Biaisali Basabadutta Baliarsingh¹, Sujit Mishra²

¹baisalibasabadutta@gmail.com

²sujit.mishra@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Atlantia* sp. 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 Ellagic acid helped to prevent Herpes.

Introduction: *Atlantia* sp. is known for its medicinal activities. The flowers, fruit and roots are used to cure herpes, jaundice, fever, headache and asthma.

The plant is classified as follows:

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Sapindales
Family	Rutaceae
Genus	<i>Atalantia</i>
Species	<i>racemosa</i>

Major phytochemicals present in the plant are:

- Allicin
- Ajoene
- Gallic acid
- Ellagic 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.