

Activity of *Melia azadirach* against Herpes through deactivation of Thymidine Kinase of Herpes Simplex virus (1KIM)

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Abstract: An in-silico study was performed to determine the activity of *Melia azadirach* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Thymidine Kinase of Herpes Simplex virus (1KIM) enzyme. It was found that Astaxanthin helped to prevent Herpes.

Introduction: *Melia azadirach* is known for its medicinal activities. The leaf juice is anthelmintic, antilithic, diuretic, herpes and emmenagogue.

The plant is classified as follows:

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Sapindales
Family	Meliaceae
Genus	<i>Melia</i>
Species	<i>azedarach</i>

Major phytochemicals present in the plant are:

- a. Zingiberene
- b. Ursolic acid
- c. Astaxanthin
- d. Digoxin

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