

International Journal of Clinical Virology

Volume - 1, Issue - 1

Research Article

Published Date:-2017-10-13 00:00:00

[Antiviral activity of Eucalyptus camaldulensis leaves ethanolic extract on herpes viruses infection](#)

Eucalyptus camaldulensis (Ec) is considered as a traditional medicinal plant with valuable therapeutic effects. Here we evaluated the antiviral activity of its ethanolic leaf extract on different herpes viruses. Vero cells were infected with either of the tested viruses [herpes simplex virus -1 and 2 (HSV-1, HSV-2) and Varicella-Zoster Virus (VZV)] with or without treatment with Ec extract and viral infection development was evaluated by plaque assay. Our results showed significant antiviral activity of the examined extract against all tested viruses. The 80%-MeOH fraction of this extract offered the highest activity against these viruses with 50% inhibitory concentration (IC₅₀) of 0.1 ± 0.08 , 0.3 ± 0.02 and 1 ± 0.03 μ g/ml against HSV-1, HSV-2 and VZV respectively and 50% cytotoxicity (CC₅₀) at 700 μ g/ml. The highest antiviral effect of this fraction was obtained mainly when it was added during and post infection (p.i.) or when it was added only p.i. Also, this fraction significantly reduced the amount of infective endogenous viral particles in cells that were treated with the 80%-MeOH fraction only post viral entry into the host cells. A synergistic antiviral effect against all tested viruses was also observed when cells were treated with a combination of acyclovir (ACV) and 80%-MeOH fraction of Ec. Further study is required for the isolation and identification of the anti-virally active component/s of this fraction.
