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Anti HIV1 activity of *Cleistanthus collinus* leaf extracts

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Despite significant advances in anti-retroviral therapy (ART), zeroing in on an effective treatment for HIV-1 infection continues to be a grueling consequence to drug resistance and undesirable side effects of anti-retroviral drugs. Therefore, a search for alternative compounds with anti HIV1 activity is of vital importance. In an endeavor to screen medicinal plants for novel therapeutic biomolecules, the present study was aimed at evaluating the in vitro anti-HIV activity of *Cleistanthus collinus* leaf extracts. Anti HIV-1 activity of the leaf extracts of *C. collinus* was tested on lymphocytes isolated from HIV positive (confirmed by ELISA) blood samples. *In vitro* replication of HIV-1 was assessed by the inhibition of p-24 antigen (viral core protein) expression. A dose-dependent inhibition of the p24 antigen expression was observed and the extract was found to be effective against HIV-1. Cytotoxicity assays revealed that the extracts were not cytotoxic at the concentrations studied in this experiment. From the results obtained, it could be surmised that the extracts of *C. collinus* have the potential to be utilized for obtaining a lead compound for drug discovery against HIV-1 infection. This is the first report of a direct inhibitory effect of extracts of *C. collinus*, on HIV-1 replication. Plant-based traditional medicines that have been effectively utilized for many centuries open up avenues for the discovery of new leads.

Biography

Remya Mohanraj completed her PhD at the age of 24 years from Bharathiar University. She is a recipient of a major research grant from Govt. Of India. She has published more than 20 papers in reputed journals and has been serving as an editorial board member and reviewer for journals of repute.

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