

Exploitation of antiviral activity of traditionally used medicinal plants

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The indigenous people of India use many plants to cure various viral. The claimed traditional uses have been proved on scientific basis using *in vitro* and *in vivo* experiments. Natural antiviral treatments are a very powerful option for treating viruses. When antiviral herbs and antiviral essential oils are used, healing time is reduced, and side effects are practically unheard of. This study is aimed at to explore the herbal origins for potent antiviral agents. Some of the best antiviral herbs include garlic, oregano, astragalus, echinacea, schizandra, mullein, elderberry, green tea, and licorice. The natural foods and herbs below have been proven to be highly effective antivirals, which may assist the body in fighting the Bird Flu and the Swine Flu. Some of the herbs are also known to suppress the cytokine storm (cytokines TNF- α and IL-6), which are known to cause inflammation and complications in influenza infections. The aqueous extracts from 21 medicinal herbs traditionally used in southern mainland China were screened for antiviral activities against human herpes simplex virus type 1 (HSV-1) and human respiratory syncytial virus (RSV) using a cytopathic effect (CPE) reduction assay and found to have significant antiviral activity. Various extracts from 30 medicinal plants were evaluated for their antiviral activity against influenza virus A/Puerto Rico/8/34 (H1N1) and cytotoxicity in MDCK cell culture, out of which methanolic extracts of the six main plants might be useful for the treatment of influenza virus H1N1. *Aegle marmelos*, *Cynodon dactylon*, *Lantana camara*, *Momordica charantia* and *Phyllanthus amarus* showed antiviral activity against WSSV. The aerial parts of *Pterocaulon sphacelatum* (Asteraceae) and roots of *Dianella longifolia* var. *grandis* (Liliaceae) were found to inhibit poliovirus. The extracts of *Euphorbia australis* and *Scaevola spinescens* were also found to be active against HCMV. The present study provides some new and potent antivirals to the field of medicine which will help in reintroduction of confidence in its users.

Biography

Dr. Sanjita Das has completed her PhD and M.Pharm in Pharmacology from Birla Institute of Technology. She is the Head of the Department of Pharmacology, Noida Institute of Engineering and Technology, Greater Noida, India. She has published 26 publications in reputed Journals and as serving as an editorial board member of reputed. She has worked as a reviewer for many reputed journals. She is guiding six PhD scholars. She is a member of Indian Pharmacology Society, Indian Chemical Society, Indian Pharmaceutical Association, Indian Pharmaceutical Graduates Association, Association of Pharmaceutical Teachers of India, and Indian Technical Society. Now she is involved in exploitation of medicinal values of the traditionally used plant sources and bioavailability studies of different medicinal products.