

Antiviral Activities of Some Traditional Medicinal Plants of Sri Lanka



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The aim of this article is to review the antiviral activity of plants traditionally used in indigenous medicine in Sri Lanka, their therapeutic potential, chemistry, and botany. Viral infections represent an increasing threat to humans worldwide. Conventional antiviral drugs are available against respiratory viruses. Naturally occurring antiviral activity of medicinal plants was used for centuries in the country's rich traditional medicine system consisting of Ayurveda, Siddha, Unani, and Deshiya Chikitsa. Traditional physicians cure diseases, including those that originate from viruses, through herbal medicine. To complement this, about 1430 species representing 838 genera, equivalent to 45% of the entire flowering plant community, are considered medicinal. The present article attempts to review the essence of decades of discoveries on antiviral and related properties of 21 medicinal plants, Allium sativum L., Annona muricata L., Ardisia elliptica Thunb., Azadirachta indica A. Juss., Caesalpinia pulcherrima (L.) Sw., Coriandrum sativum L., Coscinium fenestratum (Gaertn.) Colebr., Hedyotis corymbosa (L.) Lam., Hemidesmus indicus (L.) R. Br., Justicia adhatoda L., Ocimum tenuiflorum L., Phyllanthus embilica L., Phyllanthus debilis Klein ex Willd., Piper longum L., Piper nigrum L., Solanum xanthocarpum Schrad & Wendl., Terminalia bellirica (Gaertn.) Roxb., Terminalia chebula Retz., Tinospora cordifolia (Wild) Miers., Vitex negundo L., Zingiber officinale Roscoe. Among the medicinal plants commonly used in Sri Lankan traditional medicine, Justicia adhatoda showed stronger anti-influenza virus activity, inhibiting virus attachment and replication, while Terminalia chebula consisting of chebulagic and chebulinic acids, demonstrated direct antiviral activity against sexually transmitted herpes simplex virus-2 (HSV-2).