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# **Herbal remedies that can be used to treat type-1 hypersensitivity reaction associated with allergic rhinitis and asthma in Sri Lanka**

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Allergic rhinitis and asthma are common diseases of the immune system that negatively affect general health, quality of life, and social relationships. Many studies have been conducted to evaluate treatment options for these conditions, particularly using herbal remedies. Complementary alternative medicines are extensively used in the treatment of type 1 hypersensitivity related allergic rhinitis and asthma. There is a dearth of scientific evidence despite the fact that the Sri Lankan population uses traditional medical treatments to effectively manage these conditions. This review focuses on ten selected medicinal plants used by a traditional ayurvedic practitioner in Sri Lanka. The selected 10 plants are: *Piper longum*, *Clerodendrum indicum*, *Clerodendrum serratum*, *Zingiber officinale*, *Piper nigrum*, *Allium cepa*, *Aegle marmelos*, *Vitex negundo*, *Coriendum sativum*, and *Curcuma longa*. Therefore, to provide evidence-based recommendations for these traditional natural plants used, a comprehensive literature survey was carried out using PubMed® (U.S. National Library of Medicine, USA), Google Scholar, and Hinary® (WHO, Switzerland). After two rounds of evaluation and selection, 54 empirical studies published between 2006 and 2022 were included in this study. Herbal plant-based medications have several advantages: they are less expensive, have a long history of use, are better tolerated by patients, and have fewer or no side effects. These plants exert their anti-allergy effects by inhibiting various cytokines and interleukins and decreasing immunoglobulin levels. According to scientific evidence, *Clerodendrum indicum*, *Clerodendrum serratum*, *Piper longum*, *Piper nigrum*, *Zingiber officinale*, and *Curcuma longa* are the most studied plants. The plants *Vitex negundo*, *Coriendum sativum*, and *Clerodendrum indicum* have received the least amount of research of the selected ten plants. In addition, these essential herbal plants can be tested experimentally to treat these common type-1 hypersensitivities linked to allergic rhinitis and asthma.

**Keywords:** *Allergic rhinitis, Asthma, Type-1 hypersensitivity, Herbal remedies.*