

Researchers find herbal medicine treatment reduces inflammation in allergen-induced asthma

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Researchers from Boston University School of Medicine (BUSM) using a traditional Korean medicine, SO-CHEONG-RYONG-TANG (SCRT) that has long been used for the treatment of allergic diseases in Asia, found that SCRT treatment alleviates asthma-like pulmonary inflammation via suppression of specific chemokines or proteins. These findings appear online in the *Annals of Allergy, Asthma & Immunology*.

Asthma is a unique form of chronic respiratory disease characterized by reversible airway obstruction and pulmonary inflammation. It represents one of the most common chronic inflammatory diseases affecting an estimated 300 million people worldwide with an expected increase to 400 million by 2025. The sharply rising prevalence and incidence of asthma causes global concern both in the developed as well as in developing countries.

"In order to elucidate the mechanism of how SCRT modulates the allergic response, we evaluated the immunomodulatory effects of SCRT in a murine model of [asthma](#) induced by a house dust extract containing cockroach allergens and endotoxin," explained Jiyoun Kim, PhD, a research assistant professor of pathology and laboratory medicine at BUSM. "In this study multiple aspects of pulmonary inflammation were examined including the production of inflammatory mediators and the pulmonary recruitment of inflammatory cells," he added.

The researchers found SCRT treatment significantly reduced airway hyper-reactivity as measured by both whole body plethysmography and direct measurement of airway resistance. The researchers report that the immune response of pulmonary inflammation was significantly inhibited by SCRT [treatment](#) as demonstrated by reduced plasma IgE antibody levels and improved lung histology. SCRT significantly reduced the number of neutrophils in the bronchoalveolar (BAL) fluid and also significantly reduced the BAL levels of CXC chemokines both expressed as part of the immune response, providing a potential mechanism for the reduced inflammation.

Provided by Boston University Medical Center

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