

The antiasthmatic effect of Chinese herbal formula ST0016 via attenuation of airway hyperresponsiveness in chronic asthmatic mice

羅際堂^a, 林麗娟^b, 姜中人^a, 高尚德^{b*}

^a 中國醫藥大學醫技系

^b 中國醫藥大學中醫系

國科會計畫編號：NSC100-2320-B-039-017

摘要(Abstract)

Background : Airway hyperresponsiveness is major symptom of asthma patient. We previously found that a traditional Chinese medicine, You-Gui-Wan, exerts its therapeutic/prophylactic effects in chronic allergic asthmatic mice via its anti-inflammatory activity and by inhibiting the progression of airway remodeling.

Objective : The objective of this study was to investigate the St0016, derived from You-Gui-Wan, is similarly activities of anti-inflammatory and anti-airway remodeling.

Methods : BALA/c mice were given orally administered of St0016 (1g/kg) before intratrachelly (i.t.). Allergic airway inflammation and remodeling were provoked by repetitive Der p (50 µg /mice.) challenge for a period of 5 weeks (five times at 1-wk intervals). Airway hypersensitivity, lung histological features, and the expression profiles of cytokines and various genes were assessed.

Results : St0016 reduced airway hyperresponsiveness, and inhibited eosinophil infiltration by down regulating the protein expression of IL-5 and changed the ‘Th2-bios’ by upregulating IL-12 and INF-γ in BALF. In an analysis combing collage assay and Histopathology outcomes, St0016 reduced airway remodeling in the lung. Moreover, after St0016 treatment there was a relative decrease with mRNA expression of TGF-β1, IL-6, IL-13, TNF-α, eotaxin, RANTES, and MCP-1 in lung of St0016 group mice.

Conclusion: These results suggest that St0016 exhibits anti-airway inflammatory, anti-airway remodeling, and specific immunoregulatory effects in a chronic asthmatic mice model.

關鍵字(Keywords) : Traditional Chinese Medicine, You-Gui-Wan, Asthma