The Immunomodulatory Effect of ST3 on Dermatogoides –pteronyssinus - Induced Asthma

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Background：Hyperplasia of goblet cells 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 St3, derived from You-Gui-Wan, is similarly activities of anti-inflammatory and anti-hyperplasia.

Methods：BALA/c mice were given orally administered of St3 (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 serum antibody were assessed.

Results: St3 reduced airway hyperresponsiveness. In analysis Histopathology outcomes, St3 reduced hyperplasia of goblet cells in the lung. Moreover, after St3 treatment there was a relative decrease total Ig E of St3 group mice.

Conclusion: These results suggest that St3 exhibits anti-airway hyperresponsiveness and specific immunoregulatory effects in a chronic asthmatic mice model.

Keyword: Traditional Chinese Medicine、You-Gui-Wan、Asthma、Dermatogoides-pteronyssinus