

# Efficacy and safety of modified Mai-Men-Dong-Tang for treatment of allergic asthma

Hsu CH, Lu CM, Chang TT. Efficacy and safety of modified Mai-Men-Dong-Tang for treatment of allergic asthma.  
*Pediatr Allergy Immunol* 2005; 16: 76–81. © 2005 Blackwell Munksgaard

The aim of this study was to evaluate the efficacy and safety of a Chinese herbal formula modified Mai-Men-Dong-Tang (mMMDT) for treatment of persistent, mild-to-moderate asthma. A total of 100 asthmatic patients were enrolled and assigned to three treatment groups in this double-blind, randomized, placebo-controlled clinical trial. Over a period of 4 months, patients in groups A and B received 80 and 40 mg/kg/day of mMMDT, while those in group C received a placebo. Efficacy variables included changes in forced expiratory volume in 1 s (FEV<sub>1</sub>), symptom score, serum total immunoglobulin E (IgE), and dust mite-specific IgE. Safety assessments included complete blood count, and liver and kidney function. Relative to baseline, significantly greater increases in FEV<sub>1</sub> were demonstrated for both A and B groups in comparison with the placebo-treated analog (both  $p < 0.05$ ). Further, similar improvements in symptom score were observed for both mMMDT treatment groups. The serum total IgE for group A showed a decreasing tendency after treatment but no statistical difference was noted. Furthermore, no drug-related adverse effects were reported. Blood test, and liver and kidney function were within normal range during the study, with no marked changes demonstrated over time. In conclusion, the Chinese herbal formula mMMDT provided improvements in lung function and relieved asthma symptoms in our sample of patients. Given its efficacy and safety, we consider mMMDT a credible treatment regimen for persistent, mild-to-moderate asthma.

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Key words: Mai-Men-Dong-Tang; allergic asthma; clinical trial

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Accepted 31 August 2004

Allergen-induced, immunological disorders such as asthma, have long been considered as one of the most serious health problems in the world. In recent years, statistics show earlier onset of allergic asthma. In Taiwan, the prevalence of childhood asthma has increased from 1.3% in 1974, to 5.07% in 1985 and 5.8% in 1991 (1, 2). Because of the pandemic proportions for both the prevalence and morbidity of allergic asthma, usage of traditional Chinese herbal medicine (TCM) has become quite common because it is often perceived as natural and, therefore, considered safe.

TCMs improve immune system function and are used to treat various chronic immunological

disorders (3). The scientific literature supporting the efficacy of herbal therapies is incomplete. Further, there are few well-controlled studies supporting the efficacy of herbal remedies for treatment of, and clinical improvement in, patients with asthma. One of the most comprehensive anti-asthma clinical trials, a multi-center, double-blind and placebo-controlled study, was reported in Taiwan (4). The results showed that the TCM treatments were beneficial in the improvement of symptom scores. However, statistically significant differences were not demonstrated between treatment and placebo for many other clinical indicators. To further improve the efficacy of TCM treatment for allergic asthma, we