

原著

## 柴朴湯によるアスピリン喘息軽減による心的苦痛改善効果

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要旨：アスピリン喘息 (AIA) 病態病理はCOX 活性阻害によるロイコトリエン (LTs) 過剰産生と考える。柴朴湯 (TJ-96) 吸入がAIA患者のlysine-aspirin (LASA) 吸入負荷による気道収縮、気管支肺胞洗滌液 (BALF) 中LTC<sub>4</sub>, LTD<sub>4</sub>産生を遊離抑制するか否かを検討した。TJ-96吸入後閾値濃度以上のLASA吸入による気道収縮、気道内LTC<sub>4</sub>, LTD<sub>4</sub>産生・遊離は抑制された (前値：P<0.01, 対placebo：P<0.01)。6ヵ月間のTJ-96吸入療法 (500μg/回×2回/日) はplaceboを同様吸入時に比較し総合QOL, 同各構成項目, VAS-P, Face rating score, 各種QOLを吸入前 (P<0.01) および, Placebo吸入時 (P<0.01) に比較して有意に改善した。本結果を慢性内科疾患における慢性疼痛の観点から考察した。

索引用語：柴朴湯, 気管支喘息, アスピリン喘息, 吸入療法, ロイコトリエン

### PAIN AND KAMPO MEDICINE Vol.11 (2001)

#### Suppressive effect of Kampo medicine, Cai-pu-tang (Japanese name: Saiboku-to, TJ-96) on bronchospasms in aspirin-induced bronchial asthmatic patients and decrease of chronic pain, Especially psychological pain

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**Abstract:** Bronchial overproduction of leukotrienes (LTs) caused by inhibition of COX is the pathogenesis of aspirin-induced asthma (AIA). We investigated whether inhaled Saiboku-to (TJ-96) attenuates the response to bronchial challenge with lysine aspirin (LASA) and the associated increase of LTC<sub>4</sub> and LTD<sub>4</sub> in bronchoalveolar lavage fluid (BALF) in 32 bronchial asthmatic patients with AIA. Each subject was challenged twice with a single dose of LASA, which caused a 20% or more decrease in FEV<sub>1.0</sub> in a preliminary test, immediately after inhalation of various concentrations of (mainly: 1 mg/TJ-96 in 5ml) distilled water or placebos according to a randomized double-blind protocol. FEV<sub>1.0</sub> was recorded at 30 min intervals for 4h LTC<sub>4</sub> and LTD<sub>4</sub> in BALF, and other arachidonic acid cascades were measured by combined high-performance liquid chromatography and radioimmunoassay. After placebos were given, LASA caused an obstructive reaction in all patients. Both LTC<sub>4</sub> and LTD<sub>4</sub> in BALF increased after the challenge. Preinhaled TJ-96 provided almost completed protection of bronchoconstriction by challenge in all patients. Increase of LTC<sub>4</sub> and LTD<sub>4</sub> in BALF by challenge with LASA was also suppressed. These data confirm that preinhalation of TJ-96 is highly effective in preventing AIA and suggest that this effect is mediated by inhibition of LTs production. Thirty two patients with AIA inhaled with placebo or T-96 for 6 month (TJ-96 : 100μg/ml × 5ml/1time ; 2 times/day) by crossover method (wash-out periods of 4 weeks). Inhalation of TJ-96 significantly improved total-QOL and its components, VAS-P, face rating score and various QOL (vs before: P<0.01, vs placebo : P<0.01). The improvement of chronic pain and QOL was discussed.

**Key words:** Saiboku-to, Bronchial asthma, Aspirin-induced broncho-constriction, Leukotrienes, Aerosol therapy