

**10. Respiratory Diseases (including Influenza and Rhinitis)****References**

Saita M, Naito T, Boku S, et al. The efficacy of ma-huang-tang (maoto) against influenza. *Kampo to Meneki Arerugi (Kampo and Immuno-allergy)*. 2010; 23: 17–26 (in Japanese with English abstract).

Saita M, Naito T, Boku S, et al. The efficacy of *ma-huang-tang* (maoto) against influenza. *Health* 2011; 3: 300-3.

**1. Objectives**

To evaluate the efficacy of maoto (麻黄湯) against influenza A in adults.

**2. Design**

Randomized controlled trial (RCT).

**3. Setting**

One university hospital outpatient department, Japan.

**4. Participants**

Forty-five patients (20 years or older) visiting the hospital between November 2008 and March 2009 and testing positive for type A influenza antibody using a rapid diagnosis kit.

**5. Intervention**

Subjects were randomized to either of two arms, using Microsoft Excel.

Arm 1: TSUMURA Maoto (麻黄湯) Extract Granules (n=22).

Arm 2: no administration of maoto (n=23).

**6. Main outcome measures**

Symptoms (pyrexia [period from administration of drugs to afebrility], arthralgia, myalgia, headache, cough, and malaise) scored on a 5-point scale. Scores recorded daily for 5 days and sent by mail by each participant.

**7. Main results**

Records of symptoms including fever, etc., were obtained by mail. After excluding 8 patients whose data were not available, patients who provided complete data for analysis (18 patients in arm 1, of whom 9 patients taking oseltamivir concomitantly, and 19 patients in arm 2, of whom 13 taking oseltamivir and 6 taking zanamivir) were included for analysis. Of these 37 patients, 7 patients in arm 1 and 11 patients in arm 2 had received influenza vaccination. At the time of the allocation, there were no significant differences in age (arm 1,  $31.1 \pm 9.77$  years; arm 2,  $33.6 \pm 13.1$  years), the presence or absence of fever at the first visit, and duration of fever. During the period from administration of drugs to afebrility, there was no between-arm difference in duration of fever. Although the time to improvement of myalgia tended to be faster in arm 1, the time to disappearance of other symptoms was similar in both arms.

**8. Conclusions**

Maoto and anti-influenza agents have the same antipyretic effects in patients with influenza.

**9. From Kampo medicine perspective**

None.

**10. Safety assessment in the article**

Not mentioned.

**11. Abstractor's comments**

This is a conference presentation by Saita et al. This structured abstract is based on the paper. It is interesting that the authors found no significant differences in the effects of maoto and other agents on the clinical course of influenza infection. However, there is a source of bias in the use of anti-influenza agents, and the finding of no significant differences should be interpreted with caution. Their conclusion is based on a comparison of the efficacy of maoto and anti-influenza drugs, but the two groups cannot be compared using this study design. Saita et al. (2011) and Saita et al. (2010) are the same clinical controlled trial. The analysis groups are divided into four groups: a maoto-only group, a combined maoto and oseltamivir group, an oseltamivir-only group, and a zanamivir-only group. There was no significant between-group difference in fever duration, which points to maoto being a useful anti-influenza drug. While the study was a retrospective statistical analysis, its significance is clear.

**12. Abstractor and date**

Fujisawa M, 14 January 2011, 19 April 2013.