

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

Kimoto H, Kuroki H. Efficacy of combined administration of oseltamivir phosphate and maoto in treating influenza. *Kampo Igaku (Kampo Medicine)* 2005; 29: 166-9 (in Japanese). Ichushi Web ID: 2005292428

**1. Objectives**

To evaluate the efficacy of maoto (麻黄湯) in combination with oseltamivir phosphate in treating pediatric influenza.

**2. Design**

Quasi-randomized controlled trial (quasi-RCT).

**3. Setting**

An internal medicine clinic screening patients from January to March 2004, Japan.

**4. Participants**

Adult patients (n=37) positive for influenza (rapid diagnostic test), and having fever ( $\geq 38^{\circ}\text{C}$ ) within 48 hours of onset.

**5. Intervention**

Nineteen out of 37 subjects were included in the sample. Eighteen subjects were excluded because of body temperature not more than  $38^{\circ}\text{C}$  (n=5), being on a drip (n=1), preference for Kampo formulae only (n=5), preference for Western drugs only (n=2), cognitive impairment (n=1), refusal to give consent to participate in the study (n=1), and regular use of Kampo formulae (n=3).

Oseltamivir phosphate (75 mg b.i.d. for 5 days), TSUMURA Maoto (麻黄湯) Extract Granules 2.5 g t.i.d. for 3 days), and Western medicines (an antihistamine [cyproheptadine hydrochloride] with either a bronchodilator [clenbuterol hydrochloride] or expectorant [carbocysteine]) were administered for 3 days.

Treatment assignment was chronological according to examination date.

Arm 1: oseltamivir phosphate and maoto (麻黄湯), n=10.

Arm 2: oseltamivir phosphate and Western medicines, n=9.

**6. Main outcome measures**

Body temperature.

The magnitude and time course of symptoms such as appetite, fatigue, and dizziness/light-headedness.

**7. Main results**

All subjects studied were infected with influenza A. Patients in arm 1 tended to become afebrile 12 hours earlier than patients in arm 2. There were no significant between-group differences in anorexia, fatigue, and dizziness/light-headedness, though patients in arm 1 tended to improve more rapidly than patients in arm 2.

**8. Conclusions**

Compared with oseltamivir plus Western formulations, oseltamivir plus Kampo formulation (maoto) tended to shorten the duration of fever and allowed patients to maintain normal activity.

**9. From Kampo medicine perspective**

None.

**10. Safety assessment in the article**

There were no adverse events in any group.

**11. Abstractor's comments**

The graph shows that 12 hours after administration, fever dropped below  $38^{\circ}\text{C}$  in the maoto (麻黄湯) group, and temperature was a little above  $38.5^{\circ}\text{C}$  in the Oseltamivir phosphate-only group, which was a significant difference. After 24 hours, body temperature was about  $37.5^{\circ}\text{C}$  in both groups. However, no other clear differences in symptoms were observed between the two groups. Most of the adult participants commented that they felt more comfortable on the day after taking Oseltamivir phosphate, but adults are commonly prescribed acetaminophen in single doses as an antipyretic analgesic, and significantly, the study found that patients experienced fever as part of the natural course after administration. Exceptional cases may be excluded from the total number of cases.

**12. Abstractor and date**

Fujisawa M. 15 June 2007, 1 April 2008, 9 March, 1 June 2010, 31 December 2013.