

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

Kubo T. The effect of maoto for treatment of influenza infection in children. (from Presentation C-41 of the Japan Society for Oriental Medicine, 56th Annual Meeting) *Medicament News* 2005 Sep 5; 1846: 15 (in Japanese)

Kubo T, Nishimura H. Antipyretic effect of mao-to, a Japanese herbal medicine, for treatment of type A influenza infection in children. *Phytomedicine* 2007; 14: 96-101. CENTRAL ID: CN-00577142, Pubmed ID: 17141491

1. Objectives

To evaluate the effect of maoto (麻黄湯) in combination with oseltamivir on the duration of fever.

2. Design

Randomized controlled trial (RCT) (partly).

3. Setting

A hospital screening patients from January to May 2004, Japan.

4. Participants

Children (aged 0–13 years; n=60) suffering from influenza-like illness with fever of $\geq 38^{\circ}\text{C}$.

5. Intervention

Oseltamivir 2 mg/kg b.i.d., TSUMURA Maoto (麻黄湯) Extract Granules 0.06 g/kg t.i.d

Influenza infection was screened with a rapid diagnosis test, and diagnosis was confirmed by isolation of the virus or viral detection using RT-PCR

Arm 1: oseltamivir and maoto (麻黄湯); influenza A; n=14..

Arm 2: oseltamivir; influenza A; n=18

Arm 3: maoto (麻黄湯); influenza A; n=17.

(Influenza-positive patients [by the rapid test] were randomly assigned to arm 1 and arm 2. Arm 3 included influenza-positive patients under the age of 1 year, who did not meet the criteria for oseltamivir treatment, and influenza-negative patients aged 1 year or older. Patients [n=11] without confirmed influenza virus infections were excluded.)

6. Main outcome measures

Time to becoming afebrile after initiation of the treatment.

7. Main results

Body temperature was recorded every 6 hours in patients not treated with acetaminophen. The median period from commencement of treatment to alleviation of fever was 18 h, 24 h, and 15 h in arms 1, 2, and 3, respectively. Using the Wilcoxon rank sum test, significant differences were observed in arm 1 ($P<0.05$) and 3 ($P<0.01$) when compared with arm 2.

8. Conclusions

Maoto effectively reduces the duration of fever in children with influenza.

9. From Kampo medicine perspective

None.

10. Safety assessment in the article

There were no adverse events in any group.

11. Abstractor's comments

This RCT consisted of 3 arms: arms 1 and 2 (patients randomly allocated) but not arm 3 (patients not randomly allocated) were compared. Hopefully the authors will conduct an RCT with all three arms, and if possible, use a placebo in a fourth arm. Given that maoto (麻黄湯) has adverse effects, future research would preferably include cohort studies and an RCT with a design that takes into account the predicted frequency of such adverse effects, as mentioned by the authors.

12. Abstractor and date

Fujisawa M, 15 June 2007, 1 April 2008, 22 February 2009, 1 June 2010, 31 December 2013.