

O11-1

**Prior administration of urinastatin decrease the total dosage of gamma-globulin in early stage Kawasaki disease**

*Yoshikane Y. (1), Hashimoto J. (2), Ueda M. (2), Ogawa A. (1), Hirose S. (2)  
Department of Pediatrics, Chikushi hospital, Fukuoka university, Fukuoka, Japan (1); Department of Pediatrics, Faculty of Medicine, Fukuoka University, Fukuoka, Japan (2)*

**Background;** High dose of intravenous gamma-globulin therapy (IVIG) is established treatment of Kawasaki disease (KD). However, there have been previous reports that IVIG in extremely-early-stage of KD made it probable that patients need additional therapies. On the other hand, urinastatin is known for one of the ancillary therapies of KD due to the mechanism of elastase inhibition.

**Objectives;** To evaluate the efficacy of the prior administration of urinastatin to KD in early stage.

**Subjects and Methods;** From January 2005 to March 2010, a total of 132 hospitalized patients who were diagnosed with KD within 4 days of the onset of symptoms were enrolled. The patients were separated into two groups. Group U (n=25): who had administration of urinastatin prior to IVIG, Group N (n=107): who had no administration of urinastatin prior to IVIG. Clinical data, clinical course, and circumstances of additional therapies were compared.

**Results;** Urinastatin significantly decreased fever in group U, compared to that in group N (38.5 degree C vs. 39.1 degree C,  $p<0.05$ ). The duration of fever was shortened in group U compared to that in group N (6.0 days vs. 7.1 days,  $p<0.05$ ). There were more patients who received 1g/kg IVIG for initial therapy was enough to improve symptoms in group U compared to that in group N (60.0% vs. 29.3%,  $p<0.01$ ). There were fewer patients who received additional therapies when IVIG started on the 4th day of the onset of symptoms in group U compared to that in group N (20.0% vs. 35.6%,  $p<0.05$ ). There were fewer patients who received additional therapies when the patients were two-day administration of urinastatin prior to IVIG on the 4th day of the onset of symptoms, compared to when the patients were one-day administration of urinastatin prior to IVIG on the 5th day of the onset of symptoms (0% vs. 66.7%,  $p<0.05$ ).

**Conclusions;** Present study revealed that prior administration of urinastatin to Kawasaki disease which was diagnosed in early stage offers relief of symptoms and decrease the amount of IVIG requirement. We suggest that this will lead to the practical reduction of healthcare cost.