

Effectiveness of the methylprednisolone-prednisolone combination therapy in 1st line treatment of high risk Kawasaki disease

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Introduction (or Basis or Objectives):

IVIg is utilized as the primary treatment for Kawasaki disease (KD). However, 10-20% of patients do not respond to IVIG. There are three scoring systems for the prediction of non-response to IVIG in Japan. Steroid combination therapy for initial treatment is recommended for high risk cases in the 2012 guidelines from the Japanese society of pediatric cardiology and cardiac surgery. In our hospital we started methylprednisolone combination therapy for high risk patients, however they often needed additional treatment due to a relapse of their condition. On this basis of the fact, we changed the protocol to methylprednisolone-prednisolone (IVMP-PSL) combination therapy. Objective is to evaluate efficacy of IVMP-PSL combination therapy.

Methods:

We defined those who have high scores in 1 or 2 out of the three scoring systems as a moderate high risk patient. From January 2007 to August 2016, a total of 68 hospitalized moderate high risk patients were enrolled. The patients were separated into three groups. Group I (n=31): who were administered only IVIG, Group M (n=10): who were administered methylprednisolone and IVIG, and Group P (n=27): who were administered methylprednisolone, IVIG and prednisolone, which was tapered every 2 or 3 days, and discontinued within 10 to 14 days after the onset of fever. The necessity of additional therapies and clinical course were compared.

Results:

The necessity of additional therapies in group M was higher than that in group P (40% 4/10 vs. 26% 7/27, not significant). The number of patients who still had a residual coronary lesion over 2 months in group M+group P was significantly lower than that in group I (1/37, 3% vs 6/31, 19%, p<0.05)

Conclusions:

There is a possibility that methylprednisolone-prednisolone combination therapy is a beneficial strategy for the moderate high risk patients. Steroid combination therapy can reduce residual coronary lesions.