How much IVIG dose is optimum for low risk cases of Kawasaki disease?

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Background: In the guideline from the American Heart Association of 2004, patients of Kawasaki disease (KD) should be treated with 2 g/kg IVIG in a single infusion for initial treatment. In Japan, more than 80% KD patients receive 2g/kg IVIG in a single infusion. In the Japanese Society of Pediatric Cardiology and Cardiac Surgery guideline of 2012, administration of 1g/kg IVIG for 1 or 2 days is also approved as a modified procedure. In fact we often have experience of success in only 1g/kg IVIG. Objective: To evaluate efficacy and safety of starting initial treatment with 1g/kg IVIG for low risk cases. Subjects and Methods: We defined those who have low scores in the three major Japanese prediction scoring systems as a low risk patient. From January 2012 to October 2015, a total of 108 hospitalized low risk patients excluding those patients who did not receive IVIG (n=6) were enrolled. The patients were separated into two groups. Group 1 (n=78): who started initial treatment with 1g/kg IVIG and Group 2 (n=30): who were administered 2g/kg IVIG in a single infusion. Clinical data, clinical course, and circumstances of additional therapies were compared. Results: There were 115 low risk patients out of the total 213 KD patients (54%). There were 47 patients who finished treatment with only 1g/kg IVIG in Group 1 (60%). There were 8 patients who required another 1g/kg IVIG more than 2 days after (10%), and 23 patients who required 1g/kg IVIG for 2 days in a row (29%) in Group 1. There were 8 patients in Group 1 who required additional treatment (10%) and 4 patients in Group 2 (13%). The day of discharge of those who required a total 2g/kg IVIG for initial treatment in Group 1 was day 13 which was almost the same as that in Group 2. No patient had coronary region. Conclusions: More than half of KD patients are low risk cases. More than half of patients do not need 2g/kg IVIG in low risk cases. It may be effective and safe to start initial treatment with 1g/kg IVIG for low risk patients.