

## Efficacy and safety associated with the infusion speed of intravenous immunoglobulin for the treatment of Kawasaki disease: a randomized controlled trial.

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**Background:** Kawasaki disease is an acute, self limiting, medium vessel systemic vasculitis. It typically affects infants and young children. IVIG is the mainstay of treatment. Upto 25% of untreated children are at a risk of developing coronary artery aneurysms. According to American Heart Association guidelines, IVIG 2gm/kg is to be given over 10-12 hours. However this raises concerns of acute adverse events like headache, rash, shock, vomiting and thrombosis. Japanese protocols use total dose of IVIG over a period of 24 hours.

**Objective:** To ascertain whether there are differences in the efficacy and safety between IVIG administered over 12 h and 24 h.

**Methods:** Randomized control trial. Children <15 years of age were enrolled. All were treated with 2gm/kg and 30mg/kg of aspirin. Two groups: 12H and 24H. The patients allocated to the 12H group were treated with IVIG infusion over the course of 12 h, while those in the 24H group were treated over the course of 24 h.

## ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



### IVIG INFUSION SPEED FOR KAWASAKI DISEASE: DOES IT MATTER?

**Results:** There was no difference in median fever duration after initiation of IVIG between the two groups (median 21 h.) The percentage of patients who required additional IVIG treatment did not differ markedly between the two groups. Serum sodium concentration in the 12H group increased from day 0 to day 2. In contrast, in the 24H group, sodium levels did not markedly change before and after the IVIG treatment. Elevation of transaminases and vomiting were seen in one each in the 12H group. There were no significant differences in fever duration after the initial IVIG treatment, incidence of CAAs, or serious adverse events between the two groups.

**Conclusion:** The efficacy and safety of IVIG administered over 12 h (double speed) were similar to those administered over 24 h (reference speed).

### EXPERT COMMENT

**“IVIG 2gm/kg must be given as a single dose infusion over 12-24 hours depending upon the hemodynamic condition of the patient. Too prolonged or too short infusion time might cause suboptimal response.”**

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With warm regards,

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### Reference

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