

Immunoglobulin G Values before Treatment Are Correlated With the Responsiveness to Initial Intravenous Immunoglobulin Therapy for Kawasaki Disease

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ファイル(説明)	博士論文要旨 最終試験結果の要旨 論文審査の要旨
別言語のタイトル	川崎病患者において治療前の免疫グロブリンG値は初回免疫グロブリン療法への反応性に相関する
学位授与番号	17701甲総研第328号
URL	http://hdl.handle.net/10232/25078

論 文 要 旨

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Low levels of serum immunoglobulin G (IgG) before intravenous immunoglobulin (IVIG) therapy for Kawasaki disease (KD) have been reported as one of the risk factors for coronary artery abnormalities (CAAs). This risk factor needs to be re-evaluated because the dosage of IVIG has changed from 0.2-0.4 g/kg/day for 5 days to a single high dose of 2 g/kg. Methods: We reviewed the clinical records of KD patients admitted to our hospital from January 2001 to August 2011. Patients who were given a single high dose of IVIG within 7 days of illness, and who had blood collected for serum immunoglobulin values before treatment, were selected. The serum immunoglobulin levels and coronary artery diameters measured by echocardiogram were transformed to z-scores. Results: The subjects were 197 KD patients, including 22 IVIG nonresponders and 16 patients with CAAs. Of these, 150 (76%) had a z-score for IgG (IgGz) of ≤ 0 . There were no differences in IgGz values between patients with CAAs and those without CAAs. However, nonresponders had higher IgGz values than responders (median, 25th percentile and 75th percentile: -0.26 , -0.83 and 0.34 vs. -0.79 , -1.40 and -0.03 ; $p = 0.020$). Logistic regression analysis showed that the IgGz value was an independent risk factor for resistance to IVIG (OR 1.36, 95% CI 1.002-1.849; $p = 0.048$). Conclusions: Low IgGz values were not a risk factor for CAAs in this study. However, KD patients with relatively high IgGz values before treatment may have an increased risk of resistance to initial IVIG therapy.