

Title: Evaluation of Aspirin Responsiveness Testing in Patients after Treatment of Acute Kawasaki Disease (KD)

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Abstract:

Background: Kawasaki Disease (KD) is an inflammatory illness associated coronary artery vasculitis. Anti-inflammatory treatment is given with intravenous immunoglobulin (IVIG) and aspirin, but patients with IVIG-resistance may require additional therapy with infliximab or corticosteroids.

Objective: Inflammatory diseases can be associated with increased platelet turnover, therefore, we hypothesize that antiplatelet effects of aspirin are decreased in patients with persistent inflammation after treatment of Kawasaki disease.

Results: We found that those who received infliximab had higher platelet counts at discharge ($p=0.007$) and higher white blood cell count at outpatient follow up ($p=0.038$) than those who did not. In addition, patients who received infliximab experienced reduction in coronary artery Z-scores at discharge (LMCA, $p=0.021$ and LAD, $p<0.001$). There was no difference in frequency of aspirin non-responsiveness in either group; however, 39 of the 67 (58%) patients in the study were not responsive to aspirin at outpatient follow up.

Conclusions: Patients who required infliximab for treatment of acute KD demonstrate higher platelet count at discharge, which could contribute to increased platelet turnover and may affect aspirin-induced platelet inhibition.