Attenuated coronary flow reserve (CFR) has been reported in patients with idiopathic dilated cardiomyopathy (IDC). On the other hand, increased platelet activity has been demonstrated in patients with congestive heart failure and left ventricular dysfunction. Accordingly, we aimed to investigate whether mean platelet volume (MPV) is increased in patients with IDC and increased MPV correlates with the degree of coronary microvascular dysfunction. MPV was measured in 37 patients with IDC. Each patient with IDC also underwent echocardiographic examination including CFR measurement. Patients with IDC were divided into two groups based on median CFR value (lower CFR group and normal CFR group). MPV was significantly higher in the lower CFR group than in the normal CFR group (9.00 ± 0.56 vs. 8.25 ± 0.76 ?; respectively, p = 0.001). CFR correlated significantly and inversely to MPV (r = -0.475, p = 0.003). Logistic regression analysis revealed that MPV level was the independent predictor of lower CFR (β = -0.750, p = 0.002). Furthermore, MPV was an accurate predictor of low CFR (p = 0.001); Area under the curve was 82% (95% CI 0.67-0.96). The best cut-off value of MPV to predict low CFR was 8.3 fl with 95% sensitivity and 69% specificity. In conclusion, the present study showed a negative correlation between MPV and CFR in patients with IDC.