

ABSTRAK

Kanaya Aulia Masardi

Hubungan Kadar Troponin I dengan Nilai *Mean Platelet Volume* (MPV) dan Nilai *Platelet Large Cell Ratio* (P-LCR) pada Pasien Sindrom Koroner Akut

xv+ 65 Halaman + 8 Tabel + 7 lampiran

Sindrom koroner akut merupakan kondisi kegawatdaruratan kardiovaskular yang timbul akibat penurunan aliran darah ke otot jantung secara mendadak karena penyumbatan arteri koroner, kondisi ini disebabkan oleh ruptur plak aterosklerotik yang diikuti pembentukan trombus, sehingga menyebabkan iskemia hingga nekrosis. Penelitian ini bertujuan mengetahui hubungan kadar Troponin I dengan nilai *Mean Platelet Volume* (MPV) dan nilai *Platelet Large Cell Ratio* (P-LCR) pada pasien SKA di RSUD Haji Provinsi Jawa Timur. Troponin I merupakan biomarker spesifik kerusakan miokard, sedangkan MPV dan P-LCR mencerminkan aktivitas dan ukuran trombosit yang berperan dalam proses trombosis. Penelitian dengan desain observasional analitik dengan pendekatan *cross sectional* dilaksanakan pada Januari–Februari 2026 dengan jumlah sampel sebanyak 30 pasien SKA yang dipilih secara *purposive sampling*. Pemeriksaan Troponin I menggunakan *Analyzer SD Biosensor F200* metode *Fluorescence Immunoassay*, sedangkan MPV dan P-LCR menggunakan *hematology Analyzer* metode *fluorescence flow cytometry*. Hasil penelitian menunjukkan rata-rata Troponin I 2,49 ng/mL (67% meningkat), MPV 10,29 fL (3% meningkat), dan P-LCR 26,63% (13% meningkat). Berdasarkan uji statistik *Spearman*, diperoleh adanya hubungan antara kadar Troponin I dengan nilai MPV ($p=0,047$; $r=0,365$) serta dengan nilai P-LCR ($p=0,039$; $r=0,380$).

Kata kunci: Troponin I, MPV, P-LCR, Sindrom Koroner Akut

Daftar bacaan : 7 buku, 61 artikel jurnal (2013 - 2025)

ABSTRACT

Kanaya Aulia Masardi

Relationship of Troponin I Levels with Mean Platelet Volume (MPV) and Platelet Large Cell Ratio (P-LCR) in Acute Coronary Syndrome Patients

xv+65 Pages + 8 Tables + 7 Appendices

Acute coronary syndrome is a cardiovascular emergency condition that arises due to a sudden decrease in blood flow to the heart muscle due to blockage of the coronary arteries, this condition is caused by rupture of atherosclerotic plaque followed by thrombus formation, causing ischemia to necrosis. This study aims to determine the relationship between Troponin I levels with Mean Platelet Volume (MPV) and Platelet Large Cell Ratio (P-LCR) values in ACS patients at Haji Regional Hospital, East Java Province. Troponin I is a specific biomarker of myocardial damage, while MPV and P-LCR reflect the activity and size of platelets that play a role in the thrombosis process. The study with an observational analytical design with a cross-sectional approach was conducted in January–February 2026 with a sample of 30 ACS patients selected by purposive sampling. Troponin I examination used the SD Biosensor F200 Analyzer Fluorescence Immunoassay method, while MPV and P-LCR used the Hematology Analyzer fluorescence flow cytometry method. The results showed an average Troponin I level of 2.49 ng/mL (67% increase), MPV of 10.29 fL (3% increase), and P-LCR of 26.63% (13% increase). Spearman's statistical test revealed a correlation between Troponin I levels and MPV ($p=0.047$; $r=0.365$) and P-LCR ($p=0.039$; $r=0.380$).

Keywords: Troponin I, MPV, P-LCR, Acute Coronary Syndrome

Reading list: 7 books, 61 journal articles (2013-2025)