

HUBUNGAN KADAR *PLATELET TO LYMPHOCYTE RATIO* TERHADAP KEJADIAN KARDIOVASKULAR MAYOR PADA PASIEN INFARK MIOKARDIUM AKUT DENGAN ELEVASI ST YANG DILAKUKAN INTERVENSI KORONER PERKUTAN PRIMER

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ABSTRAK

Latar Belakang: Salah satu klasifikasi Sindrom Koroner Akut yaitu Infark Miokardium Akut dengan Elevasi Segmen ST (IMA-EST) menyebabkan angka morbiditas dan mortalitas yang tinggi di Indonesia. Identifikasi risiko diperlukan untuk memprediksi luaran klinis serta kemungkinan atas Kejadian Kardiovaskular Mayor (KKM) pada pasien IMA-EST. Salah satu indeks hematologis yakni *Platelet to Lymphocyte Ratio* (PLR) telah banyak diteliti sebagai markah prognostik dalam memprediksi KKM pada pasien IMA-EST dengan hasil yang beragam.

Tujuan Penelitian: Melihat hubungan *Platelet to Lymphocyte Ratio* (PLR) terhadap Kejadian Kardiovaskular Mayor (KKM) pada pasien Infark Miokardium Akut dengan Elevasi Segmen ST (IMA-EST) yang dilakukan Intervensi Koroner Perkutan (IKP) primer di RSUP Dr. Sardjito, Yogyakarta.

Metode Penelitian: Penelitian ini merupakan penelitian observasional analitik dengan desain potong lintang. Subjek penelitian berjumlah 194 pasien dengan diagnosis IMA-EST yang dilakukan IKP primer. Data pasien diperoleh dari registri SCIENCE (*Sardjito Cardiovascular Intensive Care*) secara *consecutive sampling*. Analisis data menggunakan uji *Pearson's chi-square* untuk melihat hubungan PLR terhadap KKM.

Hasil: Tidak terdapat perbedaan signifikan pada karakteristik dasar antara kelompok PLR inframedian dengan supramedian (*cutoff* 153,8). Hasil analisis menunjukkan bahwa tidak terdapat hubungan yang signifikan baik antara PLR dengan gagal jantung akut ($p = 0,566$); syok kardiogenik ($p = 0,399$); aritmia maligna ($p = 0,743$); mortalitas ($p = 0,296$); maupun kejadian kardiovaskular mayor ($p = 0,883$).

Kesimpulan: Tidak terdapat hubungan signifikan antara *Platelet to Lymphocyte Ratio* (PLR) terhadap Kejadian Kardiovaskular Mayor (KKM) pada pasien Infark Miokardium Akut dengan Elevasi Segmen ST (IMA-EST) yang dilakukan Intervensi Koroner Perkutan (IKP) primer di RSUP Dr. Sardjito, Yogyakarta.

Kata Kunci: *Platelet to Lymphocyte Ratio* (PLR), Kejadian Kardiovaskular Mayor, IMA-EST, Intervensi Koroner Perkutan Primer

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***ASSOCIATION BETWEEN PLATELET TO LYMPHOCYTE RATIO AND
MAJOR ADVERSE CARDIAC EVENTS IN PATIENTS WITH ST
ELEVATION MYOCARDIAL INFARCTION UNDERWENT PRIMARY
PERCUTANEOUS CORONARY INTERVENTION***

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ABSTRACT

Background: One of the classifications of Acute Coronary Syndrome, which is ST Elevation Myocardial Infarction (STEMI) causes high morbidity and mortality rates in Indonesia. Risk identification is needed to predict the outcome and the likelihood of Major Adverse Cardiac Events (MACE) in STEMI patients. Platelet to Lymphocyte Ratio (PLR) has been widely studied as a prognostic marker in predicting MACE in STEMI patients with different results.

Objective: To investigate the association between Platelet to Lymphocyte Ratio (PLR) and Major Adverse Cardiac Events (MACE) in patients with ST Elevation Myocardial Infarction underwent Primary Percutaneous Coronary Intervention (PPCI) in RSUP Dr. Sardjito, Yogyakarta.

Method: This study is an analytic observational study with cross sectional design. Total of 194 consecutive patients who presented with STEMI and underwent PPCI were included into this study. The patients' data were obtained from SCIENCE (Sardjito Cardiovascular Intensive Care) registry. Data were analyzed using Pearson's chi-square test to know the association between PLR and MACE.

Result: There were no significant differences in the baseline characteristics between inframedian and supramedian groups (cutoff 153.8). There was no significant association between PLR with acute heart failure ($p = 0.566$), cardiogenic shock ($p = 0.399$), malignant arrhythmia ($p = 0.743$), mortality ($p = 0.296$), and major adverse cardiac events ($p = 0.883$).

Conclusion: There was no significant association between Platelet to Lymphocyte Ratio (PLR) and Major Adverse Cardiac Events (MACE) in patients with ST Elevation Myocardial Infarction underwent Primary Percutaneous Coronary Intervention (PPCI) in RSUP Dr. Sardjito, Yogyakarta.

Keywords: Platelet to Lymphocyte Ratio (PLR), Major Adverse Cardiac Events, STEMI, Primary Percutaneous Coronary Intervention

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