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**PLATELET TO LYMPHOCYTE RATIO (PLR) SEBAGAI PREDIKTOR KEJADIAN KARDIOVASKULAR MAYOR (KKM) PADA
PASIEN INFARK MIOKARD AKUT**
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Universitas Gadjah Mada, 2019 | Diunduh dari http://etd.repository.ugm.ac.id/

INTISARI

Latar belakang: Penyakit Jantung Koroner (PJK) merupakan penyebab utama kematian dan kecacatan di negara maju. Infark miokard akut berhubungan dengan peningkatan *Platelet to Lymphocyte Ratio* (PLR). *Platelet to lymphocyte ratio* (PLR) mewakili dua prediktor yaitu jalur agregasi dan jalur imun. *Platelet to lymphocyte ratio* berhubungan dengan meningkatnya aktivitas inflamasi dan memberatnya status pro trombotik yang disebabkan proliferasi megakariosit dan trombositosis relatif.

Tujuan : Penelitian ini bertujuan untuk mengevaluasi peran PLR ≥137 saat masuk rumah sakit sebagai prediktor kejadian kardiovaskular mayor (KKM) pada pasien Infark Miokard Akut (IMA) pada 7 hari perawatan di rumah sakit.

Metode: Penelitian ini menggunakan rancangan kohort prospektif observasional. Subjek adalah pasien yang didiagnosis IMA dan dirawat di ICCU RSUP Dr. Sardjito. *Platelet to lymphocyte ratio* dibagi menjadi 2 kelompok yaitu kelompok PLR ≥137 dan PLR <137. Subjek diamati selama 7 hari perawatan di RS dan dinilai munculnya KKM.

Hasil: Subjek penelitian ini sebanyak 134 pasien. Selama pengamatan KKM dialami oleh 43 subjek (31,81%). Nilai median PLR subjek yang mengalami KKM 156,83 (44,25 – 784,15) berbeda bermakna dengan nilai PLR pada subjek yang tidak mengalami KKM 125,88 (54,52 – 276,74) dengan p=0,002. Nilai PLR ≥137 mempunyai kecenderungan meningkatkan risiko KKM dengan RR=2,483 (p=0,034; 95%CI: 1,069 – 5,767).

Kesimpulan: Nilai PLR ≥137 saat masuk rumah sakit pada pasien infark miokard akut dapat menjadi prediktor terjadinya kejadian kardiovaskular mayor (KKM) pada 7 hari perawatan.

Kata kunci: *Platelet-lymphocyte ratio* (PLR), infark miokard akut, kejadian kardiovaskular mayor (KKM)

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ABSTRACT

Background: Coronary Heart Disease (CHD) is a leading cause of death and disability in developed countries. Acute myocardial infarction (AMI) is associated with increased levels platelet to lymphocyte ratio. Platelet to lymphocyte ratio (PLR) represents two predictors, namely aggregation pathways and immune pathways. Platelet to lymphocyte ratio is associated with increased inflammatory activity and weighted pro-thrombotic status caused by megacaryocyte proliferation and relative thrombocytosis

Objective: This study aimed to prove the role of PLR ≥137 on admission as a major adverse cardiovascular event (MACE) predictor in patients with AMI at 7 days of hospital care.

Method: This study used a observasional prospective cohort design. Subjects were patients diagnosed with AMI and treated at the ICCU RSUP Dr. Sardjito. Platelet to lymphocyte ratio was divided into 2 groups, namely PLR group ≥137 and PLR <137. Subjects were observed for 7 days of care in the hospital and assessed for the appearance of MACE.

Results: A total of 134 patients were recruited for the study. During observation, MACE were recorded in 43 subjects (31.16%). The median PLR of subjects who had MACE were 156.83 (44.25 – 784.15), significantly higher than PLR in subjects who did not have MACE 125.88 (54.52 – 276.74), with p = 0,002. PLR ≥137 is associated with higher risk of MACE with RR = 2.483 (p=0.034; 95%CI: 1.069 – 5.767).

Conclusion: AMI patients with PLR ≥137 on admission had higher risk for MACE during 7 days of hospitalization.

Keywords: Platelet to lymphocyte ratio, acute myocardial infarction, major adverse cardiovascular event