INTISARI

PLATELET-TO-LYMPHOCYTE RATIO (PLR) SEBAGAI INDIKATOR PROGNOSTIK PASIEN KARSINOMA SEL HATI (KSH) YANG MENJALANI *TRANSARTERIAL CHEMOEMBOLIZATION* (TACE)

Cynthia Tejasaputra[1], Neneng Ratnasari[2], Fahmi Indrarti[3]
[1]PPDS Ilmu Penyakit Dalam, [2]Subbagian Gastroenterohepatologi, [3]Subbagian Gastroenterohepatologi
Departemen Ilmu Penyakit Dalam Fakultas Kedokteran, Kesehatan Masyarakat dan Keperawatan Universitas Gadjah Mada

Latar Belakang: Karsinoma Sel Hati (KSH) merupakan keganasan penyebab kematian tertinggi ketiga di dunia. Angka mortalitas KSH masih terus meningkat. Karsinoma Sel Hati dianggap sebagai *inflammation-induced cancer*, sehingga biomarker inflamasi menjadi prediktor potensial dalam menentukan prognosis. Belum banyak studi yang meneliti peran *Platelet-to-Lymphocyte Ratio* (PLR) sebagai indikator prognosis pasien KSH yang menjalani *Transarterial Chemoembolization* (TACE).
Tujuan: Mengetahui peran PLR sebagai indikator prognostik pasien KSH yang menjalani TACE.
Metode: Penelitian menggunakan desain kohort retrospektif dengan waktu tindak lanjut 6 bulan. Sampel penelitian adalah pasien KSH yang menjalani TACE di RSUP Dr. Sardjito Yogyakarta dari 1 Januari 2019 hingga 30 Juni 2023. *Cutoff* PLR didapatkan dari analisis kurva *Receiver Operating Characteristic* (ROC). Distribusi kesintasan dianalisis dengan Kaplan-Meier. Pengaruh PLR terhadap kesintasan diuji dengan *Cox regression* untuk memperoleh *Hazard Ratio* (HR). Hasil dinyatakan bermakna bila nilai $p<0,05$.
Hasil Penelitian: Dari 105 subjek, 63 subjek memiliki PLR rendah dan 42 subjek memiliki PLR tinggi. 15 subjek pada kelompok PLR rendah dan 27 subjek pada kelompok PLR tinggi meninggal dunia. Mayoritas subjek berusia <60 tahun, laki-laki, memiliki etiologi virus, stadium BCLC B, dan Child Pugh A. Rerata waktu kesintasan hidup keseluruhan hingga batas 6 bulan adalah 4,44 bulan. Kesintasan hidup 6 bulan pasien KSH yang menjalani TACE dengan PLR tinggi dan rendah adalah 35,7% vs 76,2% dengan kesintasan hidup rerata 3,43 bulan vs 5,12 bulan (*logrank*=0,0001). Selain usia dan jumlah TACE, PLR juga secara konsisten mempengaruhi kesintasan 6 bulan pasien KSH yang menjalani TACE (p=0,001, HR=3,99).
Kesimpulan: Pasien KSH yang menjalani TACE dengan PLR rendah memiliki angka kesintasan hidup 6 bulan yang lebih baik dibandingkan pasien dengan PLR tinggi (HR = 3,99).

Kata kunci: PLR, KSH, TACE, kesintasan, prognosis

ABSTRACT

PLATELET-TO-LYMPHOCYTE RATIO (PLR) AS A PROGNOSTIC INDICATOR OF HEPATO CELLULAR CARCINOMA (HCC) PATIENTS UNDERWENT TRANSARTERIAL CHEMOEMBOLIZATION (TACE)

Cynthia Tejasaputra[1], Neneng Ratnasari[2], Fahmi Indrarti[3]
[1]Internal Medicine Resident, [2]Division of Gastroenterohepatology, [3]Division of Gastroenterohepatology
Department of Internal Medicine, Faculty of Medicine, Public Health and Nursing, Gadjah Mada University/ Dr. Sardjito Hospital, Yogyakarta, Indonesia

Background: Hepato Cellular Carcinoma (HCC) is the third highest cause of death because of cancer in the world. The mortality rate of HCC is still increasing. Hepato Cellular Carcinoma is considered an inflammation-induced cancer, so inflammation-related biomarkers are potential predictors in determining prognosis. There have not been many studies examining the role of *Platelet-to-Lymphocyte Ratio* (PLR) as an indicator of prognosis in HCC patients underwent Transarterial Chemoembolization (TACE).
Objective: Determine the role of PLR as a prognostic indicator in HCC patients underwent TACE.
Methods: The study was conducted with a retrospective cohort design with a follow-up time of 6 months. The study sample was HCC patients underwent TACE at RSUP Dr. Sardjito Yogyakarta from January 1, 2019 to June 30, 2023. PLR cutoff is obtained from Receiver Operating Characteristic (ROC) curve analysis. The survival distribution is analyzed by the Kaplan-Meier method. The effect of PLR on survival was analyzed with Cox regression to obtain a Hazard Ratio (HR). $p<0.05$ is considered statistically significant.
Results: Of the 105 subjects, 63 subjects had low PLR and 42 subjects had high PLR. 15 subjects in the low PLR group and 27 subjects in the high PLR group died. The majority of subjects were <60 years old, male, had viral etiology, stage BCLC B, and Child Pugh A. The average overall survival time up to the 6-month limit was 4.44 months. The 6-month survival of KSH patients underwent TACE with high and low PLR was 35.7% vs 76.2% with a mean survival of 3.43 months vs 5.12 months (logrank = 0.0001). In addition to age and amount of TACE, PLR also consistently affected the 6-month survival of KSH patients underwent TACE (p=0.001, HR=3.99).
Conclusion: Hepato Cellular Carcinoma (HCC) patients underwent TACE with low PLR had a better 6-month survival rate than patients with high PLR (HR = 3.99).

Keywords: PLR, HCC, TACE, survival, prognosis