INTISARI

FAKTOR PROGNOSTIK *SYSTEMIC IMMUNE INFLAMMATION* (SII) DALAM MENENTUKAN *OVERALL SURVIVAL* (OS) PADA PASIEN KANKER KOLOREKTAL METASTASIS DI RSUP. DR SARDJITO

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LATAR BELAKANG : Kanker kolorektal merupakan salah satu keganasan tersering di Indonesia, termasuk Yogyakarta. Prognosis penderita dipengaruhi oleh berbagai faktor, di antaranya faktor inflamasi. Salah satu faktor inflamasi yang telah dikaji di luar Indonesia adalah potensi dari *Systemic Immune Inflammation* (SII) yang melibatkan neutrofil, trombosit, dan limfosit dalam suatu rumusan (SII : N x P / L). Faktor tersebut dapat memprediksi prognosis penderita kanker kolorektal terutama stadium metastasis.

TUJUAN : Untuk mengetahui nilai prognostik *Systemic Immune Inflamation* (SII) dalam memprediksi *Overall Survival* pada penderita kanker kolorektal metastasis di RSUP DR. Sardjito Yogyakarta

METODE : Analisis deskriptif dan statistik menggunakan 85 data sekunder dari panel penelitian yang dilaksanakan secara prospektif penderita kanker kolorektal metastatik yang menjalani terapi di RSUP Dr. Sardjito. Dilakukan analisis menggunakan rumus (SII : N x P / L). Kurva Kaplan-Meier dan uji log rank digunakan untuk melihat perbedaan estimasi overall survival dari penderita dengan skor SII yang berbeda. *Overall survival* dan 95% interval kepercayaan (95% IK) dihitung menggunakan analisis cox regression

HASIL : Penetapan *cut-off point* nilai SII menggunakan kurva ROC sebesar 1521,67. SII tinggi diketahui meningkatkan risiko kematian 1,898 kali lebih berisiko dibanding dengan pasien dengan SII rendah (*hazard ratio:* 1,898, 95% IK 0,535-6,736), dan SII tinggi memiliki OS yang lebih rendah namun tidak signifikan secara statistik (P=0,321).

KESIMPULAN : *Systemic Immune Inflammation* (SII) merupakan faktor prognosis penurunan overall survival (OS), dengan nilai SII yang tinggi menggambarkan OS yang buruk pada pasien kanker kolorektal metastasis di RSUP Dr. Sardjito.

KATA KUNCI : kanker kolorektal metastasis, *Systemic Immune Inflamation*, OS

ABSTRACT

PROGNOSTIC FACTOR OF *SYSTEMIC IMMUNE INFLAMMATION* (SII) IN PREDICTING *OVERALL SURVIVAL* (OS) IN PATIENT WITH METASTATIC COLORECTAL CANCER AT RSUP. DR SARDJITO

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BACKGROUND : Colorectal cancer (CRC) is one of the most prevalent malignant tumor in Indonesia, including Yogyakarta. The CRC patient prognosis is affected by several factors including inflammatory factors. One of the inflammatory factors that has been reviewed outside Indonesia is the potency of Systemic Immune Inflammation (SII) which involves the role of neutrophil, platelet, and lymphocyte in a formula (SII = N x P / L). These combination of hematological factors can predict the prognosis of colorectal cancer especially in metastatic stage.

AIM : To investigate the clinical significance of Systemic Immune Inflammation (SII) as independent predictor of overall survival in metastatic colorectal cancer patients.

METHOD : Descriptive and statistical retrospective analysis from the 85 prospective data panel of metastatic colorectal cancer patient who performed therapy. SII was calculated using formula (SII = N x P / L), where N, P, and L refer to neutrophil, platelet, and lymphocyte counts, respectively. Kaplan-Meier curve and Log Rank test are used to evaluate the overall survival of patients with different SII values. The overall survival and their 95% confidence interval (95% CI) were estimated by regression analyses.

RESULTS : The cut-off point of SII was set at 1521,67 using ROC curve. A high SII value increased risk of death 1,898-fold compared to low SII value (hazard ratio*:* 1,898, 95% CI 0,535-6,736). A High SII value had lower OS rate but insignificantly (P=0,203)

CONCLUSSION : Systemic Immune Inflammation (SII) is the prognostic factor of poor survival, with a high SII value predicts poor clinical outcome among patients with metastatic colorectal cancer in RSUP Dr.Sardjito

KEYWORDS : metastatic colorectal cancer, Systemic Immune Inflammation, OS