INTISARI

SYSTEMIC IMMUNE-INFLAMMATION INDEX (SII) SEBAGAI FAKTOR PROGNOSIS MORTALITAS PADA ADENOKARSINOMA PARU STADIUM IV

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Latar Belakang. Jumlah penderita kanker paru di Indonesia meningkat hingga lima kali lipat dalam sepuluh tahun terakhir. Adenokarsinoma merupakan tipe kanker paru yang paling banyak didapatkan. Penanda inflamasi diasosiasikan sebagai salah satu faktor prognosis dalam kanker, tidak terkecuali adenokarsinoma paru. *Systemic Immune-inflammation Index* (SII) adalah penanda inflamasi baru dan terjangkau yang mempunyai nilai prognostik tinggi dibanding penanda lain.

Tujuan Penelitian. Menganalisis hubungan antara *Systemic Immune-inflammation Index* (SII) yang tinggi dengan peningkatan risiko mortalitas pasien adenokarsinoma paru stadium IV di RSUP Dr. Sardjito.

Metode. Penelitian ini adalah kohort retrospektif. Subjek adalah penderita adenokarsinoma paru stadium IV yang dirawat di RSUP Dr. Sardjito pada 1 Januari 2016-1 Juli 2019. Jumlah subjek penelitian sebanyak 265, dikelompokkan menjadi dua berdasarkan titik potong nilai SII. Semua subjek menjalani terapi untuk adenokarsinoma paru. Mortalitas dinilai 6 bulan setelah diagnosis kanker tegak. Analisis statistik menggunakan uji regresi simpel untuk menilai SII sebagai faktor risiko mortalitas, dilanjutkan dengan analisis multivariat.

Hasil Penelitian. Titik potong nilai SII optimal berdasarkan kurva ROC adalah $1264{,}36 \times 10^9$/L. Nilai SII tinggi ($\geq 1264{,}36 \times 10^9$/L) meningkatkan risiko mortalitas adenokarsinoma paru dengan OR 2,27 (IK 95% 1,21-4,27). Nilai SII yang tinggi cenderung terjadi pada subjek dengan oleh metastasis hati (p=0,001).

Kesimpulan. Nilai SII yang tinggi ($\geq 1264{,}36 \times 10^9$/L) berhubungan dengan peningkatan risiko mortalitas adenokarsinoma paru sebesar OR 2,27 (IK 95% 1,21-4,27).

Kata Kunci. adenokarsinoma paru, *systemic immune-inflammation index* (SII), faktor prognosis

ABSTRACT

SYSTEMIC IMMUNE-INFLAMMATION INDEX (SII) AS A PROGNOSIS FACTOR FOR MORTALITY IN STAGE IV LUNG ADENOCARCINOMA

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Background The number of lung cancer in Indonesia has increased five times in the last ten years. Adenocarcinoma is the most common type of lung cancer. Inflammatory markers are associated as one of the prognostic factors in cancer, and lung adenocarcinomas are no exception. The Systemic Immune-inflammation Index (SII) is a new and affordable marker of inflammation that has a high prognostic value compared to other markers.

Objective. The present study aims to analyzing the relationship between a high Systemic Immune-inflammation Index (SII) and an increased risk of mortality in patients with stage IV lung adenocarcinoma in Dr. Sardjito Hospital.

Methods. This retrospective cohort study was conducted using secondary data from medical records of patients with stage IV lung adenocarcinoma treated at Dr. Sardjito Hospital on 1 January 2016-1 July 2019. The number of research subjects was 265, grouped into two based on the cut off of SII values. All subjects underwent therapy for lung adenocarcinoma. Mortality was assessed 6 months after diagnosis of cancer was established. Statistical analysis uses a simple regression test to assess SII as a risk factor for mortality, followed by a multivariate analysis.

Results. The cut off point for the optimal SII value based on the ROC curve is 1264.36×10^9/L. High SII values ($\geq 1264.36 \times 10^9$/L) increase the risk of pulmonary adenocarcinoma mortality with OR 2.27 (95% CI 1.21-4.27). High SII values tended to occur in subjects with hepatic metastases ($p = 0.001$).

Conclusion. A high SII value ($\geq 1264.36 \times 10^9$/L) is associated with an increased risk of lung adenocarcinoma mortality of OR 2.27 (95% CI 1.21-4.27).