



## INTISARI

ALI (*ADVANCED LUNG CANCER INFLAMMATION INDEX*)  
SEBAGAI FAKTOR PROGNOSTIK MORTALITAS  
ADENOKARSINOMA PARU STADIUM IV DI RSUP DR SARDJITO

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**Latar Belakang:** Jumlah pasien kanker paru di Indonesia meningkat hingga lima kali lipat dalam sepuluh tahun terakhir. Adenokarsinoma paru merupakan tipe kanker paru yang paling banyak didapatkan. Penanda inflamasi diasosiasikan sebagai salah satu faktor prognostik dalam kanker, tidak terkecuali Adenokarsinoma paru. ALI (*Advanced Lung Cancer Inflammation Index*) merupakan penanda inflamasi baru pada kanker paru dan terjangkau yang mempunyai nilai prognostik terhadap peningkatan mortalitas.

**Tujuan Penelitian:** Menganalisis hubungan antara nilai ALI (*Advanced Lung Carcinoma Index*) yang rendah sebagai faktor prognostik peningkatan risiko mortalitas pada Adenokarsinoma paru stadium IV di RSUP Dr. Sardjito.

**Metode Penelitian:** Penelitian ini adalah kohort retrospektif. Subjek adalah pasien Adenokarsinoma paru stadium IV yang dirawat di RSUP Dr. Sardjito pada 1 Januari 2014-1 Januari 2020. Jumlah subjek penelitian sebanyak 200, dikelompokkan menjadi dua berdasarkan titik potong nilai ALI. Semua subjek menjalani terapi untuk Adenokarsinoma paru. Mortalitas dinilai  $\leq$  6 bulan setelah diagnosis kanker tegak. Analisis statistik menggunakan uji *Chi Square* untuk menilai ALI sebagai faktor risiko mortalitas, dilanjutkan dengan analisis multivariat regresi logistik.

**Hasil Penelitian :** Titik potong nilai ALI optimal berdasarkan kurva ROC adalah 11,25. Nilai ALI rendah ( $< 11,25$ ) sebagai faktor prognostik peningkatan mortalitas pasien Adenokarsinoma paru dengan RR 1,82 (IK 95% 1,21-2,72) dengan  $p < 0,003$ .

**Kesimpulan :** Nilai ALI (*Advanced lung cancer inflammation index*) yang rendah ( $< 11,25$ ) sebagai faktor prognostik peningkatan risiko mortalitas Adenokarsinoma paru stadium IV sebesar 1,82 (RR) kali ( $p < 0,003$ , IK 95 % (1,21-2,72)).

*Kata Kunci : Adenokarsinoma paru, ALI ((Advanced Lung Cancer Inflammation Index), faktor prognostik.*



## ABSTRACT

ALI (ADVANCED LUNG CANCER INFLAMMATION INDEX)  
AS A PROGNOSTIC FACTOR FOR MORTALITY  
IN STAGE IV LUNG ADENOCARCINOMA AT RSUP DR SARDJITO

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**Backgrounds:** The number of lung cancer in Indonesia has increased five times inthe 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 Advanced Lung Cancer Inflammation Index (ALI) is a new and affordable marker of inflammation that has a high prognostic values compared to increase mortality.

**Objective:** The study aim to analyzing the relationship between a low Advanced Lung Cancer Inflammation Index (ALI) as a prognostic factor in increasing risk of mortality in patients with stage IV lung Adenocarcinoma at 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 2014-1 January 2020. The number of research subjects was 200, grouped into two based on the cut off of ALI values. All subjects underwent therapy for lung Adenocarcinoma. Mortality was assessed 6 months after diagnosis of cancer was established. Statistical analysis uses a Chi Square test to assess ALI as a risk factor for mortality, followed by a multivariate analysis.

**Results:** The cut off point for the optimal ALI values based on the ROC curve is 11,25. Low ALI values (< 11,25) as a prognostic factor in increasing the risk mortality of pulmonary Adenocarcinoma with RR 1.82 (95% CI 1.21-2.72), p 0,003).

**Conclusion:** A Low ALI values (< 11,25) as a prognostic factor in increasing the risk mortality of pulmonary Adenocarcinoma with RR 1.82 (95% CI 1.21-2.72), p 0,003).

**Keywords:** *Lung Adenocarcinoma, Advanced Lung Cancer Inflammation Index (ALI), prognostic factor*