

INTISARI

HUBUNGAN ANTARA *SYSTEMIC INFLAMMATION RESPONSE INDEX* (SIRI) DENGAN TINGKAT KEPARAHAN PENYAKIT BERDASARKAN GAMBARAN KOLONOSKOPI PADA PASIEN KOLITIS ULSERATIF DI RSUP DR. SARDJITO

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Latar Belakang: Kolitis ulseratif (KU) berdampak signifikan terhadap kondisi fisik dan mental pasien. *Ulcerative Colitis Endoscopic Index of Severity* (UCEIS) memungkinkan penilaian aktivitas KU secara objektif pada mukosa kolon melalui kolonoskopi. *Systemic Inflammation Response Index* (SIRI) telah dibuktikan berhubungan dengan aktivitas KU namun belum ada penelitian mengenai hubungannya dengan aktivitas KU berdasarkan gambaran kolonoskopi.

Tujuan: Mengetahui adanya hubungan antara SIRI dengan tingkat keparahan penyakit berdasarkan gambaran kolonoskopi pada pasien KU di RSUP dr. Sardjito

Metode: Penelitian *cross sectional* menggunakan data sekunder dari rekam medis pasien KU yang memenuhi kriteria inklusi dan eksklusi di poliklinik, ruang rawat inap, dan ruang endoskopi. Pengambilan sampel dengan metode *consecutive sampling* antara 1 Januari 2019 – 31 Desember 2021. Hubungan antara SIRI dan derajat keparahan KU dianalisa dengan uji korelasi *Rank Spearman*. Nilai *cut-off* SIRI untuk aktivitas KU ditentukan dengan analisis kurva *receiver operating characteristic* (ROC) dengan interval kepercayaan (IK) 95%. Pengaruh faktor perancu terhadap hubungan SIRI dan derajat keparahan KU dinilai dengan uji *Mantel-Haenszel*. Analisis bivariat untuk derajat keparahan KU terhadap SIRI dan faktor perancu dinilai dengan uji *Chi Square* atau *Fisher Exact*.

Hasil Penelitian: Dari 47 subjek penelitian, 85,1% berusia >40 tahun dan 61,6% memiliki jenis kelamin laki-laki 61,7%. Hasil uji *Spearman* menunjukkan korelasi positif antara SIRI dan derajat keparahan KU dengan kekuatan korelasi sedang ($r=0,40$; $p=0,005$). Nilai optimal *cut-off* SIRI untuk KU aktif yaitu $1,1295 \times 10^3/\mu\text{L}$. Analisis bivariat menunjukkan hubungan bermakna antara aktivitas KU dengan nilai SIRI yang tinggi ($p=0,032$), dan tidak untuk faktor perancu.

Kesimpulan: Terdapat hubungan bermakna antara SIRI dengan tingkat keparahan berdasarkan gambaran kolonoskopi pada pasien KU di RSUP dr. Sardjito

Kata kunci: *Kolitis ulseratif, systemic inflammation response index, derajat keparahan KU, kolonoskopi, ulcerative colitis endoscopic index of severity*

ABSTRACT

ASSOCIATION BETWEEN SYSTEMIC INFLAMMATION RESPONSE INDEX (SIRI) AND DISEASE SEVERITY BASED ON COLONOSCOPIC EVALUATION IN ULCERATIVE COLITIS PATIENTS AT DR. SARDJITO GENERAL HOSPITAL

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Background: Ulcerative colitis (UC) has a significant impact on the patient's physical and mental state. Ulcerative colitis endoscopic index of severity (UCEIS) allows an objective measure of UC activity in the colonic mucosa using colonoscopy. Systemic inflammation response index (SIRI) has been shown to be related to UC activity but there have been no studies regarding its relationship with UC activity based on colonoscopy.

Aim: To assess the association between SIRI and disease severity based on colonoscopic evaluation in UC patients at dr. Sardjito General Hospital

Metode: A cross sectional observational study using secondary data from medical records of UC patients who met the inclusion and exclusion criteria in the outpatient clinic, inpatients, and endoscopy room. The sample was taken using consecutive sampling methods from January 2019 to December 2021. The correlation between SIRI and UC severity was verified by Rank Spearman correlation analysis. Receiver operating characteristic (ROC) curves were constructed to evaluate the diagnostic efficiency of SIRI with 95% confidence intervals (CI). The Mantel-Haenszel test was used to determine the influence of confounding factors on the association between SIRI and UC severity. Bivariate analysis with Chi Square or Fisher's Exact tests was used to explore the association of confounding variables with active UC.

Result: Of the 47 subjects, 85.1% were >40 years old with a male proportion of 61.7%. Spearman test results showed a positive correlation between SIRI and the severity of UC with moderate correlation ($r=0.40$; $p=0.005$). The optimal SIRI cut-off value for active UC is $1.1295 \times 10^3/\mu\text{L}$. Bivariate analysis showed a significant association between high SIRI and UC activity ($p=0.032$), and not for confounding factors.

Conclusion: There is a significant association between SIRI and disease severity based on colonoscopic evaluation in UC patients at dr. Sardjito General Hospital

Keyword: *Ulcerative Colitis, Systemic Inflammation Response Index, UC severity, colonoscopy, Ulcerative Colitis Endoscopic Index of Severity*