

INTISARI

Latar Belakang: Psoriasis pustulosa generalisata (PPG) merupakan bentuk psoriasis yang jarang dijumpai dan berpotensi mengancam nyawa. Peningkatan jumlah leukosit terutama neutrofil serta adanya limfopenia pada pemeriksaan darah tepi menunjukkan adanya kelainan sistemik pada psoriasis pustulosa generalisata. Aktivasi neutrofil, limfosit dan trombosit memicu terjadinya produksi sitokin dan kemokin pro inflamasi. Indikator marker inflamasi yang berasal dari komponen hitung darah lengkap seperti rasio neutrofil limfosit (RNL), rasio trombosit limfosit (RTL), dan indeks imunitas-inflamasi sistemik (IIS) lebih murah dan mudah dilakukan dibandingkan penilaian menggunakan level sitokin. Marker inflamasi ini dapat menjadi alat yang berguna untuk stratifikasi risiko dan pemantauan respon terapi terutama di fasilitas kesehatan dengan sumber daya terbatas.

Tujuan: Evaluasi hubungan RNL, RTL, dan IIS pada derajat keparahan PPG berdasarkan *Generalized Pustular Psoriasis Physician Global Assessment* (GPPGA)

Metode: Penelitian ini menggunakan rancangan potong lintang menggunakan data rekam medis subjek PPG yang memenuhi kriteria inklusi dan eksklusi. Analisis korelasi *Spearman* digunakan untuk mengetahui hubungan RNL, RTL, dan IIS pada derajat keparahan PPG berdasarkan GPPGA. Analisis komparasi *Kruskal-Wallis* dilakukan untuk mengetahui perbedaan RNL, RTL, dan IIS pada berbagai derajat keparahan PPG berdasarkan GPPGA.

Hasil: Sebanyak 31 subjek diteliti pada penelitian ini. Hasil penelitian menunjukkan RNL dan IIS memiliki korelasi positif sedang dengan derajat keparahan PPG berdasarkan skor GPPGA, dengan nilai r masing-masing yaitu 0,533 dan 0,514 ($p < 0,05$), sementara RTL memiliki korelasi positif yang lebih lemah ($r = 0,386$, $p = 0,032$). RNL dan IIS memiliki perbedaan signifikan antar kelompok derajat keparahan PPG berdasarkan GPPGA ($p = 0,027$), sedangkan RTL tidak memiliki perbedaan signifikan secara statistik ($p = 0,079$).

Kesimpulan: Terdapat hubungan positif yang bermakna antara RNL, RTL dan IIS dengan derajat keparahan PPG berdasarkan GPPGA. Terdapat perbedaan yang bermakna RNL dan IIS pada berbagai derajat keparahan PPG. Tidak ada perbedaan bermakna secara statistik pada RTL pada berbagai derajat keparahan PPG.

Kata Kunci: *psoriasis pustulosa generalisata, rasio neutrofil limfosit, rasio trombosit limfosit, indeks imunitas-inflamasi sistemik, GPPGA*

ABSTRACT

Background: Generalized pustular psoriasis (GPP) is a rare and potentially life-threatening form of psoriasis. Increased leukocyte count, particularly neutrophils, as well as lymphopenia in peripheral blood examination indicate systemic abnormalities in generalized pustular psoriasis. Activation of neutrophils, lymphocytes, and platelets triggers the production of pro-inflammatory cytokines and chemokines. Inflammatory marker indicators derived from complete blood count components such as neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), and systemic immune-inflammation index (SII) are more cost-effective and easier to perform compared to assessment using cytokine levels. These inflammatory markers can be useful tools for risk stratification and monitoring therapy response, especially in healthcare facilities with limited resources.

Objective: To evaluate the relationship between NLR, PLR, and SII with the severity of GPP based on the Generalized Pustular Psoriasis Physician Global Assessment (GPPGA).

Methods: This study used a cross-sectional design using medical record data of GPP subjects who met the inclusion and exclusion criteria. Spearman correlation analysis was used to determine the relationship between NLR, PLR, and SII with GPP severity based on GPPGA. Kruskal-Wallis comparative analysis was performed to determine differences in NLR, PLR, and SII across various degrees of GPP severity based on GPPGA.

Results: A total of 31 subjects were studied in this research. The results showed that NLR and SII had a moderate positive correlation with GPP severity based on GPPGA scores, with r values of 0.533 and 0.514 respectively ($p < 0.05$), while PLR had a weaker positive correlation ($r = 0.386$, $p = 0.032$). NLR and SII showed significant differences between GPP severity groups based on GPPGA ($p = 0.027$), whereas PLR did not show statistically significant differences ($p = 0.079$).

Conclusion: There is a significant positive relationship between NLR, PLR, and SII with GPP severity based on GPPGA. There are significant differences in NLR and SII across various degrees of GPP severity. There is no statistically significant difference in PLR across various degrees of GPP severity.

Keywords: generalized pustular psoriasis, neutrophil-to-lymphocyte ratio, platelet-to-lymphocyte ratio, systemic immune-inflammation index, GPPGA