ABSTRAK

Anik Purnomowati
KORELASI ANTARA NEUTROPHIL LYMPHOCYTE RATIO (NLR) DAN C-REACTIVE PROTEIN (CRP) PADA PASIEN ANAK SUSPEK SEPSIS DI RSUD dr SAYIDIMAN MAGETAN

Sepsis neonatorum merupakan salah satu penyebab utama kematian neonatal di Indonesia. Diagnosis sepsis sulit ditegakkan karena gejala yang tidak spesifik, sehingga dibutuhkan penanda biologis (biomarker) yang akurat, terjangkau, dan mudah diakses. Biomarker yang umum digunakan seperti *C-Reactive Protein* (CRP) dan Procalcitonin (PCT) memiliki keterbatasan biaya dan ketersediaan. Rasio Neutrofil Limfosit (*Neutrophil Lymphocyte Ratio*/NLR) menjadi alternatif yang menjanjikan karena dapat diperoleh dari hitung darah lengkap rutin. Mengetahui korelasi antara nilai NLR dan CRP pada pasien anak dengan suspek sepsis di RSUD dr. Sayidiman Magetan. Penelitian ini menggunakan desain observasional analitik dengan pendekatan cross sectional pada 33 pasien anak suspek sepsis selama Oktober 2024 hingga Maret 2025. Data dianalisis menggunakan uji korelasi *Spearman* karena data tidak terdistribusi normal berdasarkan uji *Shapiro-Wilk*. Nilai rata-rata NLR sebesar 6,72% dan CRP sebesar 70,16 mg/L. Hasil uji korelasi Spearman menunjukkan adanya korelasi sedang antara NLR dan CRP dengan koefisien korelasi sebesar 0,407 ($p = 0,019$). Terdapat korelasi sedang yang signifikan antara NLR dan CRP pada pasien anak suspek sepsis, sehingga NLR berpotensi digunakan sebagai penanda inflamasi alternatif untuk mendeteksi sepsis anak.

Kata Kunci: Sepsis anak, CRP, Neutrophil Lymphocyte Ratio (NLR), biomarker, korelasi.

ABSTRACT

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Neonatal sepsis remains one of the leading causes of neonatal mortality in Indonesia. Due to the nonspecific clinical symptoms, diagnosing neonatal sepsis is challenging, requiring accurate, accessible, and cost-effective biomarkers. Commonly used biomarkers such as C-Reactive Protein (CRP) and Procalcitonin (PCT) have limitations in cost and availability. The Neutrophil Lymphocyte Ratio (NLR) has emerged as a promising alternative as it can be obtained from a routine complete blood count. To determine the correlation between NLR and CRP values in pediatric patients suspected of sepsis at RSUD dr. Sayidiman Magetan. This study used an observational analytic design with a cross-sectional approach involving 33 pediatric patients suspected of sepsis from October 2024 to March 2025. Data were analyzed using the Spearman correlation test due to non-normal data distribution as determined by the Shapiro-Wilk test. The average NLR value was 6.72%, and the average CRP value was 70.16 mg/L. The Spearman correlation test showed a moderate correlation between NLR and CRP with a correlation coefficient of 0.407 (p = 0.019). There is a significant moderate correlation between NLR and CRP in pediatric patients suspected of sepsis, indicating that NLR may serve as an alternative inflammatory marker in the early detection of pediatric sepsis.

Keywords: *Pediatric sepsis, C-Reactive Protein (CRP), Neutrophil Lymphocyte Ratio (NLR), biomarker, correlation.*