ABSTRAK

HUBUNGAN KRITERIA LABORATORIS TERHADAP DERAJAT KEPARAHAN PASIEN PNEUMONIA YANG DIRAWAT DI BANGSAL ANAK RSUD DR. H. ABDOEL MOELOEK, PROVINSI LAMPUNG TAHUN 2020-2022

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Latar Belakang: Pneumonia merupakan infeksi saluran napas akut yang merupakan masalah kesehatan utama dunia dikarenakan angka kejadian dan kematian yang tinggi dan penyebab utama kematian anak balita. Penanda inflamasi seperti rasio neutrofil-limfosit (RNL) dan jumlah neutrofil absolut (ANC) dapat memprediksi derajat keparahan pneumonia. Penelitian ini menguji hubungan antara jumlah leukosit, jumlah neutrofil absolut (ANC), kadar hemoglobin, laju endap darah (LED), dan rasio neutrofil-limfosit (RNL) sebagai kriteria laboratoris terhadap derajat keparahan pasien pneumonia yang dirawat di bangsal anak.
Metode: Dilakukan penelitian analisis data sekunder dengan *cross sectional* pasien anak dengan rentang usia 2 bulan hingga 18 tahun yang terdiagnosis pneumonia dan dirawat di bangsal anak (2020-2022). Penentuan derajat keparahan pneumonia didefinisikan: *severe* (sianosis, SpO_2 <90%, retraksi dada parah, kejang, atau penurunan kesadaran) dan *non-severe* (sesak napas, takipnea, dan/atau retraksi dada). Analisis uji chi-square digunakan untuk mengevaluasi hubungan antara kriteria laboratoris terhadap derajat keparahan.
Hasil: Didapatkan 104 pasien anak dengan pneumonia; 53 sampel (51%) diklasifikasikan *non-severe* dan 51 sampel (49%) diklasifikasikan *severe*. Jumlah leukosit, ANC, RNL, dan LED pada kelompok *severe* meningkat secara signifikan serta terdapat kadar hemoglobin yang rendah. Analisis uji chi-square menunjukkan RNL (*p-value* = 0,018) dan kadar hemoglobin (*p-value* = 0,010) memiliki hubungan yang bermakna terhadap derajat keparahan pneumonia.
Kesimpulan: Terdapat hubungan yang bermakna antara RNL dan kadar hemoglobin terhadap derajat keparahan pneumonia.
Kata Kunci: Pneumonia, Anak, Derajat Keparahan, RNL, ANC, Leukosit, Hb, LED.

ABSTRACT

RELATION BETWEEN LABORATORY CRITERIA ON SEVERITY OF PNEUMONIA ON PEDIATRIC WARD OF RSUD DR. H. ABDOEL MOELOEK, LAMPUNG PROVINCE 2020-2022

BY

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Background: Pneumonia is an acute respiratory infection which is a major world health problem due to the high incidence and mortality rates and the main cause of death in children. Inflammatory markers such as neutrophil-lymphocyte ratio (NLR) and absolute neutrophil count (ANC) can predict the severity of pneumonia. This study aimed the relationship between leukocyte count, absolute neutrophil count (ANC), hemoglobin (Hb) level, erythrocyte sedimentation rate (ESR), and neutrophil-lymphocyte ratio (NLR) as laboratory criteria on the severity of pneumonia patients on pediatric ward.
Method: Secondary data analysis was performed using a cross-sectional study on children with an age range of 2 months to 18 years with pneumonia in the pediatric ward (2020-2022). The severity of pneumonia was defined as: severe (cyanosis, SpO2 <90%, severe chest indrawing, seizures, or decreased consciousness) and non-severe (shortness of breath, tachypnea, and/or chest indrawing). Chi-square test analysis was used to examine the relationship between laboratory criteria and the severity of pneumonia.
Result: Out of 104 pediatric patients with pneumonia; 53 samples (51%) were classified as non-severe and 51 samples (49%) as severe. Leukocyte count, ANC, NLR, and ESR in the severe group significantly increased and hemoglobin levels was low. Chi-square test analysis displayed NLR (p-value = 0.018) and hemoglobin levels (p-value = 0.010) had a significant relationship to the severity of pneumonia.
Conclusion: NLR and hemoglobin levels were significantly assosciated with severity of pneumonia on children.

Keywords: Pneumonia, Pediatric, Severity, NLR, ANC, Leukocytes, Hb, ESR

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