

**POLITEKNIK KESEHATAN TANJUNGPURUNING**  
**JURUSAN TEKNOLOGI LABORATORIUM MEDIS**  
**PROGRAM STUDI TEKNOLOGI LABORATORIUM MEDIS**  
**PROGRAM SARJANA TERAPAN**  
Skripsi, November 2025

Indah Ramadhanti

**Hubungan Jumlah dan Jenis Leukosit Dengan Kadar C-Reactive Protein  
pada Penderita Pneumonia di RSUD Dr. H. Abdul Moeloek**

xvi + 40 halaman, tabel, 6 gambar dan 7 lampiran

**ABSTRAK**

Pneumonia merupakan peradangan akut pada parenkim paru yang sering terjadi pada anak-anak dan ditandai dengan respons inflamasi sistemik, seperti peningkatan jumlah leukosit dan kadar *C-Reactive Protein*. Penelitian ini bertujuan untuk mengetahui hubungan jumlah dan jenis leukosit dengan kadar *C-Reactive Protein* pada pasien pneumonia anak di RSUD Dr. H. Abdul Moeloek Provinsi Lampung. Penelitian menggunakan desain cross-sectional dengan teknik purposive sampling terhadap 30 pasien anak usia  $\leq 5$  tahun yang dirawat inap dan telah diperiksa jumlah leukosit serta kadar *C-Reactive Protein*. Data diperoleh dari rekam medis dan pemeriksaan laboratorium, kemudian dianalisis menggunakan uji chi-square. Hasil penelitian menunjukkan bahwa jumlah leukosit tertinggi 27 pasien (90%) dengan jenis leukosit Neutrofil 15 pasien (50%), Limfosit 14 pasien (47%), Monosit 25 pasien (83,3%), Eosinofil 15 pasien (50%), dan untuk semua responden mempunyai nilai normal pada basofil yaitu 30 pasien (100%). Terdapat hubungan yang signifikan antara jumlah leukosit dengan kadar *C-Reactive Protein* ( $p < 0,05$ ) dengan  $p$ -value 0,027, sedangkan hubungan jenis leukosit dengan kadar *C-Reactive Protein* tidak signifikan secara statistik, karena nilai dari jenis leukosit neutrofil  $p$ -value 0,776, limfosit  $p$ -value 0,647, monosit  $p$ -value 0,287, eosinofil  $p$ -value 0,192, basofil  $p$ -value 0,000. Kesimpulan dari penelitian ini adalah peningkatan jumlah leukosit berkorelasi dengan peningkatan kadar *C-Reactive Protein*, sehingga keduanya dapat dijadikan indikator awal dalam menilai inflamasi pada pneumonia.

Kata Kunci : *C-Reactive Protein*, Jumlah Leukosit, Pneumonia

Daftar Bacaan : 31 (2015-2024)

**TANJUNGPURBA MINISTRY OF HEALTH POLYTECHNIC  
DEPARTMENT OF MEDICAL LABORATORY TECHNOLOGY  
MEDICAL LABORATORY TECHNOLOGY STUDY PROGRAM  
APPLIED GRADUATE PROGRAM**

*Undergraduate Thesis, November 2025*

Indah Ramadhanti

**The Relationship between the Number and Type of Leukocytes and C-Reactive Protein Levels in Pneumonia Patients at Dr. H. Abdul Moeloek Regional Hospital**

*xvi + 40 pages, tables, 6 images and 7 attachments*

**ABSTRACT**

Pneumonia is an acute inflammation of the lung parenchyma that often occurs in children and is characterized by a systemic inflammatory response, such as an increase in the number of leukocytes and C-Reactive Protein levels. This study aims to determine the relationship between the number and type of leukocytes with C-Reactive Protein levels in pediatric pneumonia patients at Dr. H. Abdul Moeloek Regional General Hospital, Lampung Province. The study used a cross-sectional design with a purposive sampling technique on 30 pediatric patients aged  $\leq 5$  years who were hospitalized and had their leukocyte counts and C-Reactive Protein levels examined. Data were obtained from medical records and laboratory examinations, then analyzed using the chi-square test. The results showed that the highest number of leukocytes was in 27 patients (90%) with the types of leukocytes Neutrophils 15 patients (50%), Lymphocytes 14 patients (47%), Monocytes 25 patients (83.3%), Eosinophils 15 patients (50%), and for all respondents had normal values in basophils, namely 30 patients (100%). There is a significant relationship between the number of leukocytes and C-Reactive Protein levels ( $p < 0.05$ ) with a p-value of 0.027, while the relationship between the types of leukocytes and C-Reactive Protein levels is not statistically significant, because the value of the type of leukocyte neutrophil p-value 0.776, lymphocyte p-value 0.647, monocyte p-value 0.287, eosinophil p-value 0.192, basophil p-value 0.000. The conclusion of this study is that an increase in the number of leukocytes is correlated with an increase in C-Reactive Protein levels, so that both can be used as early indicators in assessing inflammation in pneumonia.

*Keywords : C-Reactive Protein, Leukocyte Type, Pneumonia*

*Reading List : 31 (2015-2024)*