

INTISARI

Latar Belakang: Pneumonia merupakan penyebab kematian tersering pada anak di bawah usia lima tahun terutama di negara-negara berkembang. Penentuan etiologi pneumonia sulit, sehingga pemilihan terapi antimikrobal biasanya ditetapkan secara empiris. Pengobatan pneumonia dapat ditentukan dengan biomarker seperti *C-Reactive Protein* (CRP) dan hitung leukosit, serta kultur darah.

Tujuan: Mengetahui profil darah rutin, CRP, dan kultur darah serta mengetahui hubungannya dengan *outcome* pasien.

Metode: Penelitian potong lintang pasien pneumonia anak yang dirawat di Instalasi Kesehatan Anak RSUP Dr. Sardjito antara 1 Januari 2009 sampai dengan 31 Desember 2012. Dilakukan analisis univariat dan bivariat dengan interval kepercayaan 95% menggunakan program SPSS versi 20.

Hasil: Dari 328 kasus pneumonia anak, median kadar hemoglobin 11 g/dl, leukosit $11.970/\text{mm}^3$, neutrofil $6.077/\text{mm}^3$, limfosit $3.681/\text{mm}^3$, eosinofil $47/\text{mm}^3$, trombosit $349.753/\text{mm}^3$, CRP 42 mg/L. Persentase subyek dengan nilai normal hemoglobin 53,4%, leukosit 63,1%, neutrofil 48,2%, limfosit 9,5%, eosinofil 50,3%, dan trombosit 68%. Dari 115 subyek yang diperiksa CRP, 56% dengan hasil positif. Dari 77 subyek yang diperiksa kultur darah, 27% tumbuh kuman yang terbanyak adalah *Pseudomonas sp*, *Staphylococcus sp*, *Klebsiella pneumoniae*. Anemia dan trombositopenia secara signifikan mempengaruhi kematian pada pneumonia anak dengan Rasio Prevalensi (RP) 2,765 (IK 95% 1,573 - 4,860) dan 2,214 (IK 95% 1,193 - 4,110).

Simpulan: Hampir separuh pneumonia pada anak memiliki profil darah rutin normal. Hasil kultur yang tumbuh sebagian besar merupakan patogen rumah sakit. Faktor yang memengaruhi kematian pada pneumonia anak adalah anemia dan trombositopenia.

Kata Kunci: *pneumonia, anak, profil, darah rutin, CRP, kultur darah, outcome*

ABSTRACT

Background: Pneumonia is the leading cause of mortality in children under five especially in the developing country. Defining the ethiology of pneumonia is hard, therefore the antimicrobial therapies are provided empirically. The therapy can be based on biomarkers such as C-Reactive Protein (CRP) and leukocyte count, as well as blood culture.

Objective: To describe the profile of routine blood count, CRP, blood culture, and correlation to the patient outcome.

Methods: Cross-sectional study was conducted to all children with pneumonia hospitalized in Pediatric Ward RSUP Dr. Sardjito between January, 2009 until December, 2012. Univariate and bivariate analysis (confidence interval 95%) on SPSS 20th version.

Result: Of 328 cases, median of hemoglobin was 11 g/dl, leukocyte count was 11.970/mm³, neutrophil was 6.077/mm³, lymphocyte was 3.681/mm³, eosinophil was 47/mm³, platelet was 349.753/mm³, CRP was 42 mg/L. Percentage of subject with normal level of hemoglobin was 53,4%, leukocyte was 63,1%, neutrophil was 48,2%, lymphocyte was 9,5%, eosinophil was 50,3%, and platelet was 68%. Of 115 subjects examined with CRP, 56% were positive. The result of 27% samples positive of blood culture (77 samples) were *Pseudomonas sp*, *Staphylococcus sp*, and *Klebsiella* respectively. Anemia and thrombocytopenia significantly affected the death of pneumonia in children with Prevalence Ratio (PR) 2,765 (CI 95% 1,573 - 4,860) and 2,214 (CI 95% 1,193 - 4,110).

Conclusion: Almost half children with pneumonia have normal profile of routine blood count. Hospital pathogen was found predominantly in the blood culture. Factors that affect the death are anemia and thrombocytopenia

Keyword: *pneumonia, children, profile, routine blood count, CRP, blood culture, outcome*