FAKTOR PREDIKTOR KEMATIAN LEUKEMIA LIMFOBLASTIK AKUT DENGAN PNEUMONIA PADA PASIEN ANAK DI RSUP DR SARDJITO

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INTISARI

Latar belakang: Pneumonia merupakan komplikasi infeksi paru paling sering dan termasuk penyebab kematian pada anak dengan leukemia limfoblastik akut (LLA). Identifikasi dan menentukan faktor prediktor kematian LLA dengan pneumonia pada anak sangat diperlukan untuk deteksi dan intervensi dini sehingga dapat menurunkan tingkat mortalitasnya.

Tujuan: Mengetahui faktor prediktor kematian LLA dengan pneumonia pada anak di RSUP Dr. Sardjito, Yogyakarta

Metode penelitian: Penelitian ini merupakan penelitian kohort retrospektif dengan subjek berusia 1-18 tahun yang dirawat inap di RSUP Dr. Sardjito periode Januari 2018 – Desember 2021. Subjek terdiagnosis LLA disertai pneumonia pada awal rawat inap diteliti dengan pengumpulan data berdasarkan rekam medis dan *e-medical record*. Faktor prediktor kematian yang diteliti meliputi jenis kelamin, usia, status gizi, stratifikasi risiko LLA*, fase kemoterapi, kadar hemoglobin, kadar trombosit, jumlah neutrofil absolut (ANC), pneumonia berulang, dan *radiologic severity index* (RSI).

Hasil: Dari 110 pasien usia 1 – 18 tahun yang dirawat dengan LLA dan pneumonia selama periode penelitian, 24 pasien (21,8%) di antaranya meninggal. Analisis multivariat menunjukkan bahwa trombositopenia <50.000 sel/μL dengan OR 4,60 (IK 95% 1,34-15,84) dan RSI >19 dengan OR 14,912 (IK 95% 3,77-58,97) merupakan prediktor kematian LLA dengan pneumonia.

Kesimpulan: Trombositopenia <50.000 sel/μL dan RSI >19 merupakan prediktor independen kematian LLA dengan pneumonia pada anak di RSUP Dr. Sardjito, Yogyakarta

Kata kunci: pneumonia, leukemia limfoblastik akut, anak, prediktor mortalitas

PREDICTOR OF MORTALITY IN ACUTE LYMPHOBLASTIC LEUKEMIA WITH PNEUMONIA IN CHILDREN AT DR SARDJITO HOSPITAL

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ABSTRACT

Background: Pneumonia is the most common pulmonary infection complication and cause of mortality in children with acute lymphoblastic leukemia (ALL). Identifying and determining predictor of mortality in ALL with pneumonia is crucial for early detection and intervention to reduce mortality rates.

Objective: To identify predictor of mortality in children with ALL and pneumonia at Dr. Sardjito General Hospital, Yogyakarta.

Methods: This was a retrospective cohort study involving patients aged 1-18 years and hospitalized at Dr. Sardjito General Hospital Yogyakarta from January 2018 – December 2021. Subjects diagnosed with ALL and pneumonia at the admission were enrolled, collecting data based on medical records and e-medical records. Predictor factors of mortality studied included gender, age, nutritional status, ALL risk stratification, chemotherapy phase, hemoglobin level, platelet level, absolute neutrophil count (ANC), recurrent pneumonia, and radiological severity index (RSI).

Results: A total of 110 subjects aged 1-18 years admitted with ALL and pneumonia during the study period, 24 patients (21.8%) died. Multivariate analysis showed that thrombocytopenia <50,000 cells/mm^3 with OR 4.60 (95% CI 1.34-15.84) and RSI >19 with OR 14.912 (95% CI 3.77-58.97) were mortality predictors of ALL with pneumonia.

Conclusion: Thrombocytopenia <50,000 cells/µL and RSI >19 are independent predictors of mortality in children with ALL and pneumonia at Dr. Sardjito General Hospital Yogyakarta

Key words: pneumonia, acute lymphoblastic leukemia, children, predictors of mortality