

Karakteristik dan Faktor Risiko yang Memengaruhi Kejadian Pneumonia pada Keganasan Anak = Characteristics of Pneumonia in Pediatric Patients with Malignancy and its Risk factors

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Abstrak

Latar belakang. Jumlah pasien keganasan anak di Indonesia tertinggi di Asia Tenggara dan pneumonia merupakan komplikasi infeksi tersering serta memiliki luaran yang lebih berat. Namun, hingga saat ini belum ada penelitian mengenai prevalens, karakteristik, dan faktor risiko kejadian pneumonia pada pasien keganasan anak di Indonesia

Tujuan. Mengetahui prevalens, karakteristik, dan faktor-faktor yang memengaruhi kejadian pneumonia pada pasien keganasan anak di RSCM.

Metode. Penelitian ini merupakan studi deskriptif analitik dengan metode potong lintang retrospektif menggunakan data rekam medis pasien. Subjek yang diteliti ialah seluruh pasien keganasan berusia 1 bulan-18 tahun yang dirawat inap di IGD, PICU, dan bangsal anak RSCM dari Januari 2021 sampai Desember 2023. Faktor risiko yang dianalisis, antara lain usia, jenis keganasan, status imunisasi, status gizi, tipe terapi keganasan, neutropenia, dan riwayat rawat inap 14 hari.

Hasil. Terdapat 162 subjek yang memenuhi kriteria inklusi dan eksklusi dalam penelitian. Prevalens pneumonia pada pasien keganasan anak di RSCM sebesar 43,2% (70/162) subjek, terdiri dari 78,5% (55/70) kasus pneumonia terkait RS dan 21,4% (15/70) kasus pneumonia komunitas. Karakteristik subjek dengan pneumonia, antara lain median usia 5,3 tahun (min-mak 0,2-17,5 tahun), median usia awitan keganasan 4,7 tahun (min-mak 0-17,3 tahun), jenis kelamin lelaki 57,1% subjek, pengidap leukemia 55,7% subjek, imunisasi tidak lengkap 38,6% subjek, status gizi kurang/buruk 54,3% subjek, terapi keganasan berupa kemoterapi 61,4% subjek, neutropenia 65,7% subjek, dan riwayat rawat inap 14 hari 34,3% subjek. Profil klinis dan pemeriksaan penunjang pada subjek dengan pneumonia, yakni 37,1% subjek mengalami pneumonia sangat berat, terapi oksigen dengan kecepatan >6 lpm 40% subjek, 52,8% subjek tidak terdapat leukositosis, kadar CRP meningkat pada 80% subjek, kadar PCT meningkat pada 71,4% subjek, dan rontgen dada kesan sugestif pneumonia pada 82,9% subjek. Hasil analisis multivariat faktor yang memengaruhi kejadian pneumonia dan pneumonia terkait RS adalah status gizi kurang/buruk (AOR 3,24; IK 95% 1,49-7,05; p=0,003 dan AOR 2,98; IK 95% 1,24-7,17; p=0,015), neutropenia (AOR 4,15; IK 95% 1,94-8,84; p<0,001 dan AOR 4,59; IK 95% 1,94-10,86; p<0,001), serta riwayat rawat inap (AOR 8,48; IK 95% 2,63-27,31; p<0,001 dan AOR 12,34; IK 95% 3,71-41,09; p<0,001).

Simpulan. Faktor yang memengaruhi kejadian pneumonia, khususnya pneumonia terkait RS pada pasien keganasan anak adalah status gizi kurang/buruk, neutropenia, dan riwayat rawat inap 14 hari.

.....**Background.** The number of pediatric malignancies in Indonesia is the highest in Southeast Asia.

Pneumonia is the most common infection in childhood cancer and also has more severe outcomes than normal children. However, there has been no research regarding the prevalence, characteristics, and risk factors influencing pneumonia in pediatric patients with malignancy in Indonesia

Objectives. To determine the prevalence, characteristics, and risk factors influencing pneumonia in pediatric patients with malignancy at RSCM.

Method. This research was a descriptive-analytical study with a retrospective cross-sectional design using medical records. The subjects studied were all malignancy patients aged 1 month-18 years who were hospitalized in the ER, PICU, and RSCM pediatric wards from January 2021 to December 2023. The risk factors which studied were age, type of malignancy, immunization status, nutritional status, type of malignancy therapy, neutropenia, and a history of hospitalization 14 days.

Result. 162 subjects met the inclusion and exclusion criteria in the study. The prevalence of pneumonia in pediatric malignancy patients at RSCM was 43,2% (70/162) subjects, consisting of 78,5% (55/70) cases of hospital-acquired pneumonia and 21,4% (15/70) cases of community-acquired pneumonia. Basic characteristics of the subjects, including median age 5,3 years (min-max 0,2-17,5 years), median age of malignancy onset 4,7 years (min-max 0-17,3 years), male 57,1% subjects, leukemia 55,7% subjects, incomplete immunization 38,6% subjects, malnutrition 54,3% subjects, chemotherapy in 61,4% subjects, neutropenia in 65,7% subjects, and history of hospitalization 14 days in 34,3% subjects. The clinical profiles and laboratory examinations in subjects with pneumonia, including 37,1% subjects had very severe pneumonia, 40% subjects had oxygen therapy >6 lpm, 52,8% subjects had no leukocytosis, CRP level increased in 80% subjects, PCT level increased in 71,4% subjects, and chest x-ray impression suggestive of pneumonia in 82,9% subjects. Multivariate analyses result of risk factors influencing pneumonia and hospital-acquired pneumonia are moderate/severe malnutrition (AOR 3,24; 95% CI 1,49-7,05; p = 0,003 and AOR 2,98; 95% CI 1,24-7,17; p = 0,015), neutropenia (AOR 4,15; 95% CI 1,94-8,84; p <0,001 and AOR 4,59; 95% CI 1,94-10,86; p <0,001) and history of hospitalization (AOR 8,48; 95% CI 2,63-27,31; p <0,001 and AOR 12,34; 95% CI 3,71-41,09; p <0,001).

Conclusion. Moderate/severe malnutrition, neutropenia, and a history of hospitalization 14 days are risk factors for pneumonia, especially hospital-acquired pneumonia in pediatric patients with malignancy.