FAKTOR PREDIKTOR KEMATIAN ANAK DENGAN KANKER YANG MENGALAMI DEMAM NEUTROPENIA

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Intisari

Latar belakang. Demam neutropenia merupakan komplikasi paling umum terjadi pada pasien yang menjalani kemoterapi. Menurunnya jumlah neutrofil menyebabkan pasien kanker mudah mengalami infeksi yang menyebabkan tertundanya kemoterapi, meningkatkan morbiditas dan mortalitas. Identifikasi faktor prediktor kematian, mikroorganisme dan sensitivitas antibiotik dapat menjadi pedoman tatalaksan pasien.

Tujuan. Mengetahui prediktor kematian anak dengan kanker hematologi yang mengalami demam neutropenia

Metode. 127 subjek dilibatkan dalam studi retrospektif yang dilakukan di RSUP Dr.Sardjito sejak 1 Januari 2018 hingga 31 Desember 2022. Sampel diambil secara concecutive sampling dengan kriterian inklusi dan eksklusi. Analisis dilakukan menggunakan anilisi bivariat dan multivariat regresi logistik. Hasil antara variabel dinyatakan dengan odd ratio (OR) dan interval kepercayaan 95% dengan tingkat kemaknaan statistic $p<0,05$.

Hasil. Angka mortalitas secara keseluruhan mencapai 59,1%. Bakteremia tersering disebabkan oleh gram negatif (29,9%) yaitu E.Colli (28,1%). Sensitifitas antibiotik paling tinggi ditemukan pada meropenem (64,1%) dan amikacin (56,7%). Analisis multivariat menunjukan bahwa mortalitas berkorelasi dengan bakteremia, pneumonia, diare, mukositis, nilai hemoglobin <8,5gr/dL dan nilai trombosit $<50.000/mm^3$

Kesimpulan. Bakteremia, pneumonia, diare mukositis, nilai trombosit $<500.000/mm^3$ dan nilai hemoglobin <8,5 gr/dl merupakan faktor prediktor kematian anak dengan kanker yang mengalami demam neutropenia.

Keywords. Prediktor, keganasan, kematian, mikroorganisme

PREDICTOR FACTOR OF MORTALITY IN CHILDREN WITH MALIGNANCY WHO HAVE FEBRILE NEUTROPENIA

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Abstract

Background. Neutropenic fever is the most common complication in patients undergoing chemotherapy. The reduced number of neutrophils makes cancer patients susceptible to infection which causes delays in chemotherapy and increases morbidity and mortality. Identification of mortality predictor factors, microorganisms, and antibiotic sensitivity can guide patient management.

Purpose. To determine the predictors of child mortality with hematological oncology malignancy with neutropenic fever.

Method. One hundred thirty subjects were included in a retrospective cohort study conducted at RSUP Dr. Sardjito from 1 January 2018 to 31 December 2022. Medical history of possible predictive prognostic factors, including microorganism patterns and antibiotic sensitivity, were recorded. Samples were taken with a consecutive sampling method by inclusion and exclusion criteria. Analysis was performed using bivariate and multivariate analysis was presented as odds ratio (OR), confidence interval 95%, and statistical significance levels $p<0,05$.

Results. The mortality rate was 59,1%. Most common bacteria were Gram-negative (29,9%), while E.colli (28,1%)was predominant. The highest antibiotic sensitivity was found in meropenem (64,1%) and amikacin (56,7%). Multivariate analysis showed that mortality was correlated with bacteremia, pneumonia, diarrhea, mucositis, hemoglobin level <8,5mg/dL, and thrombocytopenia <50.000/mm$^{3.}$

Conclusion. Bacteremia, pneumonia, diarrhea, mucositis, hemoglobin level <8,5mg/dL, and thrombocytopenia <50.000/mm^3 were predictor factors of mortality in febrile neutropenic children with malignancy.

Keywords. Predictors, mortality, malignancy, microorganism