FAKTOR PREDIKTOR KEMATIAN PADA NEONATUS DENGAN SEPSIS NEONATORUM AWITAN LAMBAT

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INTISARI

Latar Belakang: Sepsis neonatorum awitan lambat (SNAL) sering dikaitkan dengan tingkat kematian yang bermakna, gangguan perkembangan saraf pada para penyintas, dan peningkatan biaya perawatan kesehatan. Data tentang gambaran klinis dan hasil pemeriksaan laboratorium sebagai prediktor kematian pada neonatus dengan SNAL masih terbatas sehingga penelitian tentang hal tersebut sangat dibutuhkan.

Tujuan: Mengidentifikasi faktor prediktor kematian neonatus dengan sepsis neonatorum awitan lambat

Metode: Penelitian kohort retrospektif menggunakan data sekunder rekam medis pada neonatus dengan SNAL yang dirawat di RSUP Dr Sardjito antara Januari 2019 hingga Desember 2021. Kriteria eksklusi meliputi bayi lahir luar, kelainan bawaan dan bedah mayor, polimikroba, terkonfirmasi covid-19, terinfeksi TORCH atau rekam medis yang tidak lengkap. Perbandingan antara variabel menggunakan uji *Chi-square* atau uji Fisher dan analisis regresi logistik dilakukan untuk mengontrol semua variabel serta menentukan faktor independen yang bermakna terkait dengan SNAL. *Adjusted* o*dds ratio* (aOR) dan interval kepercayaan 95% (IK) dihitung untuk setiap faktor yang mungkin terkait.

Hasil: Terdapat 192 bayi yang memenuhi kriteria inklusi dan eksklusi dalam penelitian ini. Delapan puluh lima (44,3%) meninggal dan 107 (55,7%) hidup. Patogen penyebab SNAL tersering pada penelitian ini adalah bakteri gram negatif, yaitu 141 kasus (73,4%), dengan bakteri gram negatif paling dominan adalah *Klebsiella pneumonia* (26,6%), sedangkan bakteri gram positif menyumbang 23,9% dengan 19,3% diantaranya adalah *Stafilokokus koagulase negatif* (CONS). Dengan analisis multivariat, lahir <1000 gram (aOR 12,34; IK 95% 1,21-125,60;p=0,034), 1000-1499 gram (aOR 5,49; IK 95% 1,03-29,12;p=0,045), 1500-2499 gram (aOR 6,14; IK 95% 1,15-32,75;p=0,033), ventilasi mekanik invasif (aOR 8,42;IK 95% 2,13-11,20;p<0,001) dan trombositopenia (aOR 4,89;IK 95% 4,00-17,70;p<0,001) yang menunjukkan kemaknaan secara statisitik.

Kesimpulan: Ventilasi invasif mekanik dan trombositopenia merupakan prediktor kematian neonatud dengan SNAL.

Kata kunci: Sepsis awitan lambat, neonatus, prediktor kematian

PREDICTORS OF MORTALITY IN LATE ONSET NEONATAL SEPSIS

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ABSTRACT

Background: Late-onset neonatal sepsis (LONS) is associated with significant mortality, neurodevelopmental impairment among survivors, and increased healthcare costs. Data on presenting clinical and laboratory as independent predictors for LONS-associated death are still limited so study about predictors of LONS-associated death is urgently needed.

Objectives: Identify independent predictors of mortality for neonates with late-onset neonatal sepsis

Method: A retrospective cohort study was conducted in neonates with late-onset neonatal sepsis admitted to the NICU Sardjito Hospital between January 2019 to December 2021 through medical record. Subjects were excluded if they were born outside hospital, suspected of having major congenital disorders, confirmed covid-19, had TORCH infection or incomplete medical records. Comparisons between categorical variables were performed using the Chi-squared test or Fisher's exact test. Logistic regression analysis was performed to determine the significant independent factors associated with mortality of LONS. Adjusted odds ratio (ORs) and 95% confidence intervals (CIs) were calculated for each possible associated factor.

Result: Eighty-five (44.3%) died and 107 (55.7%) were survived. The most common causative pathogens in this study were gram-negative bacteria, accounted 141 cases (73.4%), with the most dominant was *Klebsiella pneumonia* (26,6%), whether gram-positive bacteria accounted for 23.9% which 19.3% were *Coagulase-negative staphylococci* (CONS). Birth weight < 1000 gram (p=0.034; aOR 12.34; CI 95% 1.21-125.60), 1000-1499 gram (p=0.045; aOR 5.49; CI 95% 1.03-29.12), 1500-2499 gram (p=0.033; aOR 6.14; CI 95% 1.15-32.75), mechanic invasive ventilation (p<0.001; aOR 8.42; CI 95% 2.13-11.20) and thrombocytopenia (p<0.001; aOR 4.72; CI 95%: 2.04-10.93) were significant predictors for LONS mortality by multivariate analysis.

Conclusions: Low birth weight, mechanical invasive ventilation and thrombocytopenia were significant predictors of LONS mortality.

Keywords: Late onset sepsis, neonatal, predictors of mortality