

ABSTRAK

ASSOCIATION BETWEEN GESTATIONAL AGE CLASSIFICATION OF PREMATURE INFANTS AND THE INCIDENCE OF NEONATAL SEPSIS

Azarine Zuleka Ramadani W. S¹, Haryatiningsih Purwandari², Eni Rahmawati²

Background: Neonatal sepsis merupakan salah satu penyebab utama morbiditas dan mortalitas bayi baru lahir di seluruh dunia, termasuk Indonesia, terutama pada bayi yang lahir prematur. Prematuritas diketahui meningkatkan risiko terjadinya sepsis karena ketidakmatangan sistem imun dan organ vital. Berdasarkan tingginya angka kejadian sepsis dan kelahiran prematur, penelitian ini dilakukan untuk mengetahui hubungan antara usia gestasi bayi prematur dengan kejadian sepsis neonatorum di RSUD Prof. Dr. Margono Soekarjo Purwokerto.

Method: Penelitian ini menggunakan desain cross-sectional dengan menggunakan data sekunder dari rekam medis bayi prematur yang dirawat di RSUD Prof. Dr. Margono Soekarjo Purwokerto selama tahun 2023. Pengambilan sampel dilakukan dengan teknik total sampling. Analisis data yang digunakan adalah univariat dan bivariat analisis yaitu uji Chi-Square.

Results: Hasil penelitian menunjukkan bahwa sebagian besar bayi prematur tergolong dalam kategori usia gestasi moderate to late preterm (>32–36 minggu) sebanyak 80,4%, dengan angka kejadian sepsis sebesar 16,4%. Proporsi kejadian sepsis paling tinggi terjadi pada kelompok usia gestasi <32 minggu (32,1%), jauh lebih tinggi dibandingkan kelompok usia >32 minggu (12,6%). Uji Chi-Square menunjukkan hubungan yang signifikan antara usia gestasi dan kejadian sepsis neonatorum ($p = 0.000$).

Conclusion: Penelitian ini menyimpulkan bahwa terdapat hubungan yang signifikan antara usia gestasi bayi prematur dengan kejadian sepsis neonatorum. Semakin rendah usia gestasi saat kelahiran, semakin tinggi risiko bayi mengalami sepsis. Imaturitas sistem imun dan kebutuhan prosedur invasif menjadi faktor penting yang meningkatkan risiko sepsis pada bayi dengan prematuritas tinggi.

Keywords: *neonatal sepsis, premature infants, gestational age.*

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Background: Neonatal sepsis is one of the leading causes of newborn morbidity and mortality worldwide, including Indonesia, especially in babies born prematurely. Prematurity is known to increase the risk of sepsis due to immaturity of the immune system and vital organs. Based on the high incidence of sepsis and preterm birth, this study was conducted to determine the relationship between gestational age of preterm infants and the incidence of neonatal sepsis at Prof. Dr. Margono Soekarjo Purwokerto Hospital.

Method: This study used a cross-sectional design using secondary data from the medical records of premature infants treated at Prof. Dr. Margono Soekarjo Purwokerto Hospital during 2023. Sampling was done with total sampling technique. Data analysis used was univariate and bivariate analysis, namely Chi-Square test.

Result: The results showed that most preterm infants were classified as moderate to late preterm (>32-36 weeks) as much as 80.4%, with a sepsis incidence rate of 16.4%. The proportion of sepsis incidence was highest in the <32 week gestational age group (32.1%), much higher than the >32 week age group (12.6%). Chi-Square test showed a significant association between gestational age and incidence of neonatal sepsis ($p = 0.000$).

Conclusion: This study concluded that there is a significant relationship between gestational age of preterm infants and the incidence of neonatal sepsis. The lower the gestational age at birth, the higher the risk of sepsis. Immune system immaturity and the need for invasive procedures are important factors that increase the risk of sepsis in infants with high prematurity.

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