

ABSTRACT

Background: Despite a significant reduction in the prevalence of neonatal sepsis over the last three decades, the prevalence remains high, especially in low- and middle-income countries. The aim of this study was to determine the prevalence and presenting features of neonatal sepsis at a paediatric emergency department (ED).

Methods: Medical records of all neonates presenting to an academic hospital paediatric ED over a six-month period were analysed. Data was compared between neonates with and without sepsis. The odds ratio was calculated to determine factors associated with neonatal sepsis.

Results: Of the 210 neonates that were included, 43 (20.5%) were diagnosed with sepsis. Of these, 19 (44.2%) presented within the first 72 hours of life (early-onset neonatal sepsis) and 4 (9.3%) died prior to hospital discharge. A history of maternal employment (odds ratio (OR) 2.38, $p=0.021$), preterm birth (OR 3.24, $p=0.019$), low birth weight ($<2.5\text{kg}$) (OR 2.67, $p=0.026$), being human immunodeficiency virus-exposed (OR 3.35, $p=0.002$), not being breast fed (OR 4.36, $p=0.001$), and signs of lethargy (OR 14.01, $p<0.001$), dehydration (OR 11.14, $p<0.001$), poor feeding (OR 7.20, $p<0.001$), irritability (OR 6.93, $p<0.001$), fever (OR 5.50, $p<0.001$), vomiting (OR 4.14, $p<0.001$) and respiratory distress (OR 4.12, $p<0.001$) at presentation were significantly associated with neonatal sepsis.

Conclusion: Among neonates presenting to the paediatric ED, various clinical features on history and examination may be useful in predicting the diagnosis of neonatal sepsis. Clinicians working in the paediatric ED must adopt a high index of suspicion when attending to neonates presenting with these features.