



Rinawati Rohsiswatmo, M Azharry

Universitas Indonesia, Indonesia

TLR2 and TLR4 expressions in late-onset neonatal sepsis: Is it a potential novel biomarker?

Late-onset neonatal sepsis (LONS) diagnosis is problematic as no single examinations (blood culture, CRP) are reliable. Toll-like receptors (TLRs), which detect the presence of pathogen-associated molecular patterns is a promising novel biomarker, but less studied in LONS.

A cross-sectional study conducted in 2017 involving 52 neonates with clinically LONS. As for the result, the incidence of LONS was 32.6% in the subjects. The expression of TLR2 was low in LONS, while TLR4 was high. It was related with higher prevalence of negative gram bacteria rather than positive as a cause of sepsis in our unit. TLR4 neutrophil expression has high sensitivity, but low specificity, and an AUC of 0.541. TLR4 monocyte expression has high sensitivity, but low specificity and an AUC of 0.528. The AUC of CRP is increased after combination with TLR4, comparable with CRP + PCT.

The increase in TLR4 expression has good sensitivity but low specificity. TLR4 expression, in combination with CRP, could become a reliable biomarker for the diagnosis of LONS.

Biography

Rinawati Rohsiswatmo achieved her title as Professor of Pediatrics (Neonatology) from Faculty of Medicine University of Indonesia in 2020. She is a Neonatologist, a lecturer and currently holds the position of Head of Maternal and Child Health Center KIARA, Department Faculty of Medicine in University of Indonesia, Cipto Mangunkusumo General Hospital. She has also been serving as a peer reviewer for Medical Journal of Indonesia, Sari Pediatrics Indonesia, Frontiers Pediatrics and British Medical Journal.

e: rinarohsis@gmail.com