

Omayma O. Abdelaleem, Shereen Rashad Mohammed, Hassan S. El Sayed, Sherin Khamis Hussein, Doaa Y. Ali, Mostafa Y. Abdelwahed, Sylvana N. Gaber, Nada F. Hemeda and Rehab G. Abd El-Hmid (2022). Serum miR-34a-5p and miR-199a-3p as new biomarkers of neonatal sepsis. PLOS ONE, 1-14. https://doi.org/10.1371/journal.pone.0262339	البحث السادس
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Title	Serum miR-34a-5p and miR-199a-3p as new biomarkers of neonatal sepsis.
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ABSTRACT

Background

Neonatal sepsis is a serious condition. Recent clinical studies have indicated that micro-RNAs (miRNAs) are key players in the pathogenesis of sepsis, which could be used as bio-markers for this condition.

Patients and methods

A total of 90 neonates with sepsis and 90 healthy neonates were enrolled in this study. qRT-PCR was performed to measure the expression levels of serum miR-34a-5p and miR-199a3-p.

Results

miR-34a-5p and miR-199a-3p serum levels were significantly reduced in neonates with sepsis compared with those in healthy neonates ($P = 0.006$ and $P = 0.001$, respectively). Significant correlations of miR-34a-5p and miR-199a-3p with each of TLC, RDW, RBS, and C- reactive protein (CRP) as well as SNAPII were observed, indicating their associations with the severity of neonatal sepsis.

Conclusion

miR-34a-5p and miR-199a-3p may be useful as novel biomarkers in neonatal sepsis and may provide a new direction for its treatment.