

Sixth Paper

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 microRNAs (miRNAs) are key players in the pathogenesis of sepsis, which could be used as biomarkers 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-199a-3p. **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 SNAP II were observed, indicating their associations with the severity of neonatal sepsis.