28<sup>th</sup> World Congress on

# Neonatology & Diagnosis

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## The role of nCD64 in the diagnosis of neonatal sepsis in preterm newborns

**Background:** Diagnosing neonatal sepsis is difficult, particularly in preterm newborns. A promising method appears to be evaluation of cell surface markers by flow cytometry.

**Materials & Methods:** This prospective study investigated 217 newborns suspected of having early- or late-onset neonatal sepsis. Flow cytometry was used to determine the proportion of CD64-positive neutrophils (nCD64). Based on the clinical course and laboratory test results, newborns were categorized as having proven, possible, clinical or no neonatal sepsis. Subsequently, associations between the categories and nCD64 values were analysed.

**Results:** There were significant associations between nCD64 values and the development of sepsis in newborns with both early- or late-onset sepsis.

Conclusion: nCD64 expression is significantly elevated in preterm newborn with early and late onset sepsis. The results show that nCD64 is a reliable marker for diagnosing neonatal sepsis.

#### Biography

Anna Medkova is pursuing 4th year of her PhD study at the Faculty of Medicine and Clinics Mother Child Health, Palacky University Olomouc, Czech Republic. Her theme is new markers of newborn sepsis. She used to work at Neonatology Department, Bulovka Hospital, Prague. For now, she is part of the team on Pediatrics Hematooncology at the Department of Pediatrics, University Hospital Olomouc and Faculty of Medicine and Clinics Mother Child Health, Palacky University Olomouc, Czech Republic. She has published one article in IF journal *World Journal of Pediatrics* and another articles in Czech journals.

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