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## The role of recombinant human granulocyte colony-stimulating factor (G-CSF) in the management of neonatal sepsis in premature infants

Saeidi Reza, Akhavan Hossein, Farhat Ahmad Shah and Shapouri-Moghadam Abbas  
Mashhad University of Medical Sciences, Iran

Whenever neonatal sepsis is associated with neutropenia, mortality and morbidity also increases. We know in the preterm infants that neutropenia is common. In this study, we evaluated the effects of G-CSF administration on early onset neonatal sepsis in premature infants. This study was performed at the College of Medicine, Mashhad University, NICU of Qaem Hospital between May 2012 and February 2013. In this study, we enrolled 50 premature neonates with GA<35 weeks and a mean birth weight of 1500±499 g, who were under five days old that were admitted to NICU with the clinical diagnosis of sepsis. The study population was divided to the case (G-CSF) and control groups placebo (dextrose 5%). To analyze the data with nominal scale, Pearson's Chi-square test was used. In some cases, more than 20% of expected frequencies of tables were less than five (Cochran) Fisher's test (Fisher's exact test) was used, and SPSS v.19 and Statistical v.8 software were used. There was significant difference between two groups for absolute neutrophil count (ANC) in second sampling ( $P=0.010$ ), but for other cases, the difference wasn't statistically significant ( $P>0.05$ ). Also the change in absolute neutrophil counts between two blood exams showed significant difference in control group ( $P=0.006$ ), but the difference wasn't statistically significant in the study group ( $P=0.627$ ). Routine administration of G-CSF is not recommended as an adjuvant therapy for neonatal sepsis in non-neutropenic premature neonates.

### Biography

Saeidi Reza has completed his Medical studies at Tehran University; has done his specialty in Pediatrics from Tehran University of Medical Sciences in Iran and subspecialty in Neonatology from Mashhad University of Medical Sciences. He has published more than 50 articles in reputed journals. He is the Editor-in-Chief of *Iranian Journal of Neonatology*. He has attended more than 100 national and international conferences.

saeedir@mums.ac.ir

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