

## SOLUBLE TRIGGERING RECEPTOR EXPRESSED ON MYELOID CELLS-1 (STREM-1) IN NEONATAL SEPSIS

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Timely diagnosis of neonatal bacterial infection remains one of the most common and problematic tasks encountered in the neonatal setting. The potential for the reduction in morbidity and mortality and a reduction in antibiotic usage has stimulated the ongoing search for laboratory methods for diagnosis of infection before the clinical signs become apparent. We evaluated the diagnostic value of the plasma level of soluble triggering receptor expressed on myeloid cells-1 (sTREM-1) in distinguishing between sepsis and non-infectious inflammatory disorders in neonates.

Eighty-three neonates with suspected sepsis were enrolled in the study. Blood was drawn for measurement of sTREM-1 levels, and microbiological cultures were obtained at the same time. Sixteen neonates had bacterial infection and sixty-seven neonates had no evidence of sepsis based on the results of the microbiological cultures. sTREM-1 levels were not significantly different in infants with or without culture-positive sepsis with mean and standard in all patients  $356 \pm 218$  versus  $385 \pm 254$  pg/mL, respectively. Mann-Whitney U tests determined non-statistical significance with a p value of 0.640 for all neonates with and without bacterial infection.

This study did not find any advantage in measuring sTREM-1 to improve the ability to differentiate between neonatal sepsis and sterile systemic inflammation and thereby reduce the unnecessary use of antibiotics in this population.