Correlation of hematological parameters with different stages of dengue in pediatric population: a retrospective study

Manoj P Rai, Ramakrishna Pai Jakribettu, Andrew Thaliath, Rekha Boloor, Shridhar Avabratha and Manjeshwar Shrinath Baliga
Father Muller Medical College, USA
Weill Cornell Medical College, USA

During the course of Dengue infection, IgM is detected around 3-5 days following the onset of illness, reaching peak levels around 10th day to reach undetectable levels at 2-3 months. IgG dengue-antibody appears during first week of illness and has been noted to persist lifelong (WHO - 1997). Levels of Dengue IgM antibody during secondary dengue infection is significantly lower and undetectable compared to primary dengue infection. Hence, both dengue IgM and IgG antibody profiling are required for identification of secondary dengue infection (WHO.1997). A total of 69 of dengue positive and 93 dengue negative children aged <18 from Father Muller medical college, Mangalore with serological diagnosis based on Dengue NS1Ag and differential of IgM and IgG antibody results and IgM ELISA confirmatory test are enrolled. Correlation - Hemoglobin (p = 0.0003 r = 0.236), Total Count (p =< 0.001 r = -0.504), Platelet (p=<.001 r = -0.741). The results show statistically significant negative correlation for Total Count and platelet counts with stage of dengue determined on the basis of antibody type. Thus careful monitoring of hematological parameters at different time points of illness and its correlation with antibody typing could be helpful for evaluation of prognosis and careful interventions to curtail the complications would result in reduction of morbidity and mortality.

Biography

Ramakrishna Pai Jakribettu and Dr. Rekha Boloor M.D are affiliated with Father Muller Medical College - Department of Microbiology, Dr. Manoj P Rai - has been working as a research assistant Weill Cornell Medical College NY from past 1 year, Dr. Shridhar Avabrata M.D - Associate professor of Pediatrics, Father Muller Medical College, India. Andrew Thaliath is currently an Intern in Father Muller Medical College and Dr. Manjeshwar Shrinath Baliga Phd is the research chair for Father Muller Medical College, India.

mpr2001@med.cornell.edu