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## **Clinical and Laboratory profile of Dengue NS1 antigen positives: An observational study from Northern Sri Lanka.**

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Dengue Fever (DF) is an arboviral disease which is caused by one of the four antigenically distinct virus serotypes. As there is no effective vaccine available to prevent dengue, meticulous fluid management is the cornerstone of managing these patients. Early diagnosis plays a crucial role in preventing the severity and fatality. Dengue non-structural 1 (NS1) antigen test is a highly specific and sensitive diagnostic test in the early days of illness. In this study the clinical profile, hematological parameters and liver transaminases of the dengue NS1 positive patients were evaluated. Blood samples were collected from 150 adult dengue suspected patients from day 1 to 5 of the illness in medical wards of Jaffna Teaching Hospital from October 2017 to May 2018. Rapid dengue NS1 antigen test (RapiGEN BIOCREREDIT, Republic of Korea.) was performed, 78 patients were positive for dengue NS1 antigen. Fever was the most common symptom found in all the patients followed by headache, nausea, anorexia, vomiting, myalgia, abdominal pain and retro orbital pain. Hematological profile and transaminase levels of dengue NS1 positives were analyzed based on the day of admission and they also separated into two groups such as severe thrombocytopenia (Plt <100 x10<sup>9</sup>/L) and thrombocytopenia (Plt >100 x10<sup>9</sup>/L). Patients who had NS1 positivity on 3<sup>rd</sup> day of admission noted to have severe thrombocytopenia and had significant rise (p<0.05) in hemoglobin, hematocrit and liver transaminase levels and these parameters are considered as severe form of disease. This observation shows persistence of viraemia in day 3 of the febrile illness as evidence by positive DEN NS1 could predict an adverse outcome in these patients.

Keywords: Dengue, antigen, platelet

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