THE RELATIONSHIP BETWEEN DENGUE NS1AG QUANTITATIVE RATIO AND DENGUE SEVERITY

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BACKGROUND

Early identification of patients with dengue infection who are at risk for developing dengue severe would be an important step in improving the clinical management of this disease. However, to date there is still no specific laboratory test that will help identify dengue severe.

OBJECTIVES

This study identified the relationship between the quantitative ratio of Dengue NS1Ag and the severity of dengue fever.

METHODS

This is a retrospective study in which the charts of patients diagnosed with dengue severe were reviewed. The relationship of NS1Ag ratio and the outcome of patients with severe dengue as well as day of illness when test was extracted were analyzed using $\chi 2$ test or Wilcoxon rank sum whichever was deemed appropriate. SensitIvity, specificity as well as positive and negative predictive value of NS1Ag ratio in predicting dengue severity were also determined

RESULTS

A total of 98 patients were included with having severe dengue. Ten patients died with a mortality rate of 10%. Higher values were seen in paitents with severe dengue (1.067 – 3.548) as well as those with severe dengue who died (3.4 – 4.035). However, the relationship between higher NS1Ag and mortality was not statistically significant ($p = 0.18$). NS1 Ag ratio demonstrated high sensitivity (90%) to detect mortality in patients with dengue but low specificity (31.8%). This test also has a 97% negative predictive value

CONCLUSION

The current study found no statically significant relationship between NS1 Quantitative ratio and mortality from dengue. NS1 Quantitative ratio has high sensitivity but low specificity in predicting dengue severe infections. However, the test has high negative predictive value hence, a low dengue NS1Ag ratio will have a low probability to develop severe dengue disease.