

ADAMTS 13 LEVELS AND VON WILLEBRAND FACTOR (VWF) COLLAGEN ACTIVITY IN DENGUE FEVER (AVID STUDY)

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Objective: To estimate the levels of ADAMTS 13 levels and vWF activity in adults with dengue fever at presentation and compare it to disease severity.

Methods: This is a prospective observational study conducted in the Departments of Medicine, Medical ICU and Accident and Emergency Medicine at Christian Medical Hospital, Vellore, India from May 2016 to July 2017. Consecutive adult patients with acute febrile illness and thrombocytopenia of less than 1lac/cu mm who also fulfilled the other inclusion and exclusion criteria were recruited. Sample for ADAMTS 13 and vWF:CBA was collected on day 1 and patients were followed till death, discharge or convalescence. We analysed factors affecting dengue severity by univariate analysis and used logistic regression on these significant factors for multivariate analysis.

Results: A total of 62 patients (40 males and 22 females) were recruited. Fifteen patients had non-severe dengue with no warning signs, 36 had non-severe dengue with warning signs and 11 had severe dengue. We clubbed the latter two severity grades into “more severe dengue” and the former as “less severe dengue” for outcome analysis. Though ADAMTS 13 levels did not correlate with disease severity, higher levels of ADAMTS 13 meant lesser transfusion requirement. On multivariate analysis higher SOFA scores on Day 1 was associated with dengue severity.

Keywords: Dengue, ADAMTS 13, vWF collagen activity, SOFA