

DIFFERENCE OF ANGIOPOIETIN-2 LEVEL IN DENGUE HEMORRHAGIC FEVER WITH AND WITHOUT SHOCK

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ABSTRACT

Purpose: Dengue infection is one of health sector problem in Indonesia, as the incidence and mortality rate due to dengue infection in Indonesia has escalated over the years. The purpose of this study is to analyse the difference of angiotensin-2 level in dengue hemorrhagic fever with and without shock

Methods: One hundred and ten children with dengue hemorrhagic fever were recruited into this study. We examine the clinical manifestation, laboratory parameter (platelet, hematocrit, AST and ALT) and molecular test (Ang-2 and sVE-Cadherin). The molecular indicator was tested by Enzyme-Linked Immunosorbent Assay (ELISA). Data were collected between July 2016 until June 2018. This is an observational study with cross-sectional comparative design in children with dengue virus infection in RSUP DR M Djamil Padang. The data obtained were analyzed using a computer system in the form of tables and graphs.

Results: In our study we have found correlation of clinical symptoms (mucosal bleeding, abdominal pain, persistent vomiting, and hepatomegaly), hematocrit levels, and decreased platelet levels between DHF with shock compared to DHF without shock. Interestingly, there is a significant difference in the average rate of Ang-2 between DHF patients with shock compared to DHF without shock ($p < 0.05$). However, there was no difference in the average rate of sVE-Cadherin. The average levels of Ang-2 in DHF patients with shock is $739,66 \pm 55,21$ pg/ml while in DHF alone is $497,90 \pm 220,68$ pg/ml.

Conclusions: There was a difference in the average level of Ang-2 between DHF patients with shock and without shock

KEYWORDS: Dengue Haemorrhagic Fever, Children, Ang-2, Sve-Chaderin

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