

## Perbedaan Kadar *Platelet Activating Factor* Plasma antara Penderita Demam Berdarah Dengue dan Demam Dengue

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### Abstrak

Manifestasi klinis infeksi virus dengue dapat berupa demam dengue atau keadaan yang lebih berat yaitu demam berdarah dengue. Patogenesis yang menerangkan hal tersebut belum jelas. Teori yang sering dikemukakan yaitu pada penyakit dengue berat terjadi peningkatan kadar mediator proinflamasi. Tujuan penelitian ini untuk melihat perbedaan kadar *platelet activating factor* plasma penderita demam berdarah dengue dengan demam dengue. Penelitian observasional dengan rancangan potong lintang dilakukan pada Januari–Februari 2013. Subjek penelitian adalah penderita dengue usia 1–14 tahun yang dirawat di Rumah Sakit Dr. Hasan Sadikin Bandung, RSUD Kota Bandung (Ujungberung), dan RSUD Kota Cimahi (Cibabat). Diagnosis dengue dikonfirmasi dengan pemeriksaan antigen nonstruktural-1 dan atau pemeriksaan serologis imunoglobulin M dan G. Sampel darah fase demam, kritis dan pemulihan diambil untuk pemeriksaan kadar *platelet activating factor* plasma menggunakan metode *enzyme-linked immunosorbent assay*. Selama kurun waktu penelitian didapat 26 penderita dengue, terdiri atas 14 kasus demam dengue dan 12 demam berdarah dengue. Kadar *platelet activating factor* plasma pada fase kritis penderita demam berdarah dengue [541,45 (239,30–2.449,00)] pg/mL lebih tinggi secara bermakna dibandingkan dengan penderita demam dengue [289,55 (149,50–961,50)] pg/mL;  $p=0,007$ . Simpulan, kadar *platelet activating factor* plasma pada fase kritis penderita demam berdarah dengue lebih tinggi daripada penderita demam dengue. [MKB. 2013;45(4):251–6]

**Kata kunci:** Demam berdarah dengue, demam dengue, *platelet activating factor*

## The Difference of Platelet Activating Factor Plasma Level between Dengue Hemorrhagic Fever and Dengue Fever patients

### Abstract

Dengue virus infection can manifest as dengue fever and, more severely, as dengue hemorrhagic fever. Their pathogenesis until now is not fully understood. One of the most favorable theories stated the presence of increasing titer of pro-inflammatory mediator in severe dengue. The aim of this study was to determine the difference of plasma platelet activating factor titer between dengue hemorrhagic fever and dengue fever patients. This observational study with cross sectional design was conducted during January–February 2013. Subjects were dengue patients, 1 to 14 years old, hospitalized at Dr. Hasan Sadikin General Hospital, Bandung District Hospital (Ujungberung), and Cimahi District Hospital (Cibabat). Dengue cases were confirmed based on nonstructural-1 antigen and/or immunoglobulin M and G rapid test. Blood samples from febrile, critical and recovery phase were drawn for the examination of platelet activating factor titer using the enzyme-linked immunosorbent assay method. There were 26 dengue cases (14 as dengue fever and 12 as dengue hemorrhagic fever). Plasma platelet activating factor titer at the critical phase was significantly higher in dengue hemorrhagic fever patients [541.45 (239.30–2.449.00)] pg/mL compared to dengue fever patients [289.55 (149.50–961.50)] pg/mL;  $p=0.007$ . In conclusion, plasma platelet activating factor titer at the critical phase is higher in dengue hemorrhagic fever patients than in dengue fever patients. [MKB. 2013;45(4):251–6]

**Key words:** Dengue hemorrhagic fever, dengue fever, platelet activating factor

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