

## ABSTRAK

Susilo, Karina C., **Kit *Dipstick* Diagnostik Reaksi Anti-Antibodi *secretory* IgA dan Antibodi *secretory* IgA (sIgA) pada Saliva Anak Penderita Demam Berdarah Dengue, Suatu Terobosan Mutakhir untuk Menegakkan Diagnosis DBD Kriteria WHO 2009 pada Anak.** Tugas Akhir. Fakultas Kedokteran Universitas Brawijaya, Malang. Pembimbing: (I) DR.dr. I. Ketut Gede Muliarta, Sp. PA.

Demam Berdarah Dengue (DBD) merupakan penyakit infeksius yang disebabkan invasi virus dengue pada tubuh manusia. World Health Organization (WHO, 2009) mencatat bahwa DBD merupakan penyakit endemis di daerah tropis dengan tingkat mortalitas dan morbiditas yang tinggi. Data Departemen Kesehatan RI (2004) mengungkapkan 95% kematian terjadi pada anak-anak kurang dari 15 tahun. Diagnosis laboratoris yang digunakan untuk deteksi DBD adalah PCR, serologis serta hitung jumlah trombosit. Metode yang sekarang diterapkan memiliki kelemahan yakni invasif sehingga kurang sesuai untuk penderita DBD yang sebagian besar anak dibawah 15 tahun. Penggunaan saliva sebagai metode *screening* diagnostik merupakan suatu metode mutakhir untuk menegakkan DBD yang murah, tidak invasif serta efektif. Penelitian ini merupakan penelitian diskriptif kuantitatif. Pertama-tama dilakukan pengambilan sampel saliva anak penderita DBD, pemisahan protein saliva dan pemurnian protein sampai didapatkan protein IgA murni. Protein IgA tersebut diimunisasikan pada kelinci, kemudian pada akhir minggu ke 7 dilakukan panen anti-antibodi sIgA dengan mengambil darah *vena auricularis* kelinci. Pengujian spesifitas dan sensitivitas anti-antibodi dilakukan dengan metode *dot blot*. Kemudian dilakukan pembuatan kit dipstick. Setelah dibuat, kit dipstick diujikan pada sepuluh pasien yang dicurigai menderita DBD. Hasil perubahan warna kit dipstick, data rekam medis pasien dan hasil uji dotblot pasien dibandingkan untuk menentukan spesifisitas dan sensitifitas kit dipstick dalam deteksi dini DBD pada anak.

Kata Kunci: Demam Berdarah Dengue, Penderita Anak, Reaksi Antibodi-Anti Antibodi sIgA, Kit Dipstick Diagnostik

## ABSTRACT

Susilo, Karina C., **Dipstick Diagnostic Kit Anti-Antibody Secretary IgA and Antibody Secretary IgA (slgA) Reaction in Saliva's Children with Dengue Hemorrhagic Fever, A Breakthrough for Enforcing Advanced Diagnosis WHO criteria of DHF, 2009 at Children's.** Final Assiment, Faculty of Medicine, Brawijaya University, Malang. Supervisor: (I) DR.dr. I. Ketut Gede Muliarta, Sp. PA

Dengue Hemorrhagic Fever (DHF) is an infectious disease caused by the dengue virus invasion of the human body. World Health Organization (WHO, 2009) noted that dengue is endemic in the tropics with mortality and morbidity. Data from the Department of Health (2004) revealed 95% of deaths occur in children less than 15 years. Used for the laboratory diagnosis of dengue detection is PCR, serological and count the number of platelets. The method is currently applied has the disadvantage of making it less suitable for invasive dengue fever which mostly children under 15 years. The use of saliva as a diagnostic screening method is a cutting-edge method to enforce dengue inexpensive, non-invasive and effective. This research is quantitative descriptive. First of all saliva samples were taken of children with DHF, salivary protein separation and purification of the protein to protein IgA obtained pure. The IgA protein in rabbits immunized, then at the end of week 7 was harvested anti-slgA antibody with rabbit auricular vein to draw blood. Testing the specificity and sensitivity of anti-antibody is done by dot blot method. Then do the dipstick making kit. Once created, dipstick kit was tested in ten patients suspected of suffering from dengue. Color change kit dipstick results, patient medical records and test results dotblot patients compared to determine the specificity and sensitivity of the kit dipstick in the early detection of dengue in children.

Ket Point : Dengue Hemorrhagic Fever, Pediatric, Antibody and Anti-Antibody slgA reaction, Dipstick Diagnostic Kit.