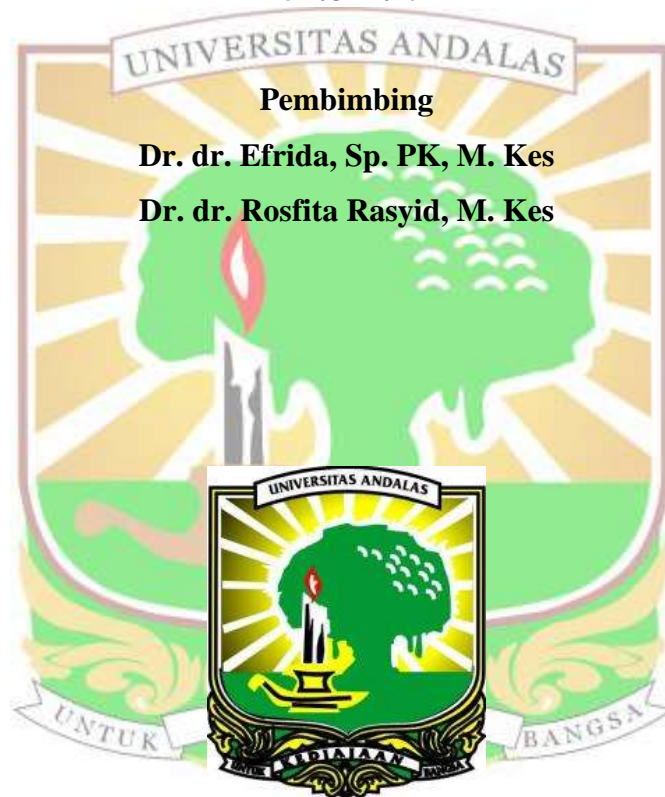


**HUBUNGAN KADAR 25-HIDROKSI VITAMIN D SERUM DENGAN
JENIS INFEKSI DAN DERAJAT KEPARAHAN INFEKSI DENGUE**

TESIS

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HUBUNGAN 25-HIDROKSI VITAMIN D SERUM DENGAN JENIS INFEKSI DAN DERAJAT KEPARAHAN INFEKSI DENGUE

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Abstrak

Infeksi dengue merupakan penyakit endemik yang belum ditemukan pengobatan dan vaksinasi efektif. Keparahan infeksi dengue dipengaruhi oleh virulensi virus dan sistem imun pejamu. Vitamin D merupakan imunomodulator yang memengaruhi sistem imun. Kadar vitamin D berbeda pada derajat keparahan infeksi dengue. Perbedaan ini mungkin karena perbedaan jenis infeksi dengue. Penelitian bertujuan untuk mengetahui hubungan kadar 25-hidroksi vitamin D serum dengan jenis infeksi dan derajat keparahan infeksi dengue.

Penelitian ini merupakan penelitian *cross sectional* terhadap 34 pasien yang didiagnosis infeksi dengue di RSI Siti Rahmah Padang. Pengambilan sampel dilakukan dengan metode *consecutive sampling*. Kadar 25-hidroksi vitamin D serum diukur dengan metode ELISA. Jenis infeksi dibedakan menjadi infeksi primer dan sekunder berdasarkan IgM dan atau IgG anti dengue secara *rapid test*. Derajat keparahan berupa demam dengue dan demam berdarah dengue, berdasarkan kadar albumin serum yang diukur dengan kolorimeter. Analisis dilakukan secara univariat dan bivariat dengan menggunakan uji t.

Hasil penelitian mendapatkan rerata umur subjek penelitian $23,79 \pm 13,35$ tahun dan lebih banyak perempuan (61,8%). Rerata kadar 25-hidroksi vitamin D serum infeksi dengue $24,14 \pm 11,83$ ng/mL. Jenis infeksi dengue lebih banyak infeksi sekunder (52,9%). Derajat keparahan infeksi dengue lebih banyak demam dengue (85,3%). Kadar 25-hidroksi vitamin D pada infeksi primer (26,90 ng/mL) lebih tinggi dari infeksi sekunder ($21,68 \pm 11,72$ ng/mL). Tidak terdapat hubungan kadar 25-hidroksi vitamin D dengan jenis infeksi dengue. Kadar 25-hidroksi vitamin D lebih tinggi pada demam berdarah dengue ($30,41 \pm 11,82$ ng/mL) dibandingkan demam dengue ($23,05 \pm 11,69$ ng/mL). Tidak terdapat hubungan antara kadar 25-hidroksi vitamin D dengan derajat infeksi dengue.

Berdasarkan hasil penelitian disimpulkan bahwa rerata kadar 25-hidroksi vitamin D serum infeksi dengue $24,14 \pm 11,83$ ng/mL (insufisiensi). Tidak ada hubungan antara kadar 25-hidroksi vitamin D serum dengan jenis infeksi dengue dan tidak ada hubungan kadar 25-hidroksi vitamin D serum dengan derajat keparahan infeksi dengue.

Kata Kunci: dengue, vitamin D, jenis infeksi, derajat keparahan

RELATIONSHIP 25-HYDROXY VITAMIN D SERUM LEVELS WITH TYPE OF INFECTION AND SEVERITY OF DENGUE INFECTION

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Abstract

Dengue infection is the endemic disease that its effective treatment and vaccination are not found yet. The severity of dengue infection affected by virulency of virus and host's immune system. Vitamin D is immunomodulator that affects immune system. The level of vitamin D is different in severity of dengue infection. The difference maybe because of different type of dengue infection. This study aimed at knowing the relationship 25-hydroxy vitamin D serum levels with type of infection and severity of dengue infection.

The study was cross sectional study to 34 patients diagnosed dengue infection in Siti Rahmah Islamic Hospital. The sample collection metode was by concecutive sampling. The level of 25-hydroxy vitamin D serum measured by ELISA. Type of infection were divided into primay and secondary infection based on IgM and or IgG anti dengue by rapid test. The severity in form of dengue fever and dengue haemorrhagic fever was based on levels of albumin serum by colorimetry. Analysis in univariat and bivariate was by using t test.

The result of study were mean age $23,79 \pm 13,35$ years and more female (61,8%). The mean of 25-hydroxy vitamin D serum levels were $24,1 \pm 11,83$ ng/mL. A type of dengue infection was more secondary infection (52,9%). The severity was of more dengue fever (85,3%). The level of 25-hydroxy vitamin D serum was higher in primary infection (26,90 ng/mL). There was no relationship between 25-hydroxy vitamin D serum levels with type of dengue infection. The level of 25-hydroxy vitamin D serum was higher in dengue haemorrhagic fever ($30,41 \pm 11,82$ ng/mL). There was no relationship between 25-hydroxy vitamin D serum levels with severity of dengue infection.

It is concluded that the mean of 25-hydroxy vitamin D serum levels were $24,1 \pm 11,83$ ng/mL (insufficiency). There was no relationship between 25-hydroxy vitamin D serum levels with type of dengue infection. There was no relationship between 25-hydroxy vitamin D serum levels with severity of dengue infection

Key words: dengue, vitamin D, type of infection, severity