ABSTRAK

Korelasi Kadar 25(OH)D Dengan Aktivitas Penyakit *Systemic Lupus Erythematosus*

Rizqi Wachida

Latar Belakang: *Systemic Lupus Erythematosus* (SLE) merupakan salah satu penyakit autoimun yang terjadi ketika respons imun mengenali *self-antigen* akibat hilangnya *self-tolerance* sehingga terjadi kerusakan jaringan, serta dipengaruhi oleh faktor lingkungan. Salah satu faktor lingkungan tersebut adalah Vitamin D. Vitamin D merupakan imunomodulator dan berperan penting dalam patogenesis SLE. Hipovitaminosis D diduga dapat meningkatkan aktivitas penyakit SLE yang pada penelitian ini dinilai dengan menggunakan skor SLAM.

Tujuan: Menganalisis korelasi antara kadar 25(OH)D dengan aktivitas penyakit yang dinilai dengan skor SLAM pada penderita SLE

Metode: Penelitian analitik observasional dengan desain *cross-sectional* yang dilakukan di Instalasi Rawat Jalan dan Rawat Inap RSUD Dr. Soetomo Surabaya pada 40 subyek penelitian yang didiagnosis SLE berdasarkan kriteria ACR 1997. Seluruh subyek dinilai aktivitas penyakitnya dengan skor SLAM dan diperiksa kadar 25(OH)D dalam serum menggunakan instrumen merk Architect dengan metode CMIA (*chemiluminescent microparticle immunoassay*). Analisis data menggunakan uji korelasi Spearman, dianggap bermakna bila $p < 0,05$.

Hasil: Dari 40 subyek penelitian, semuanya adalah perempuan dengan rerata 27,43 ± 8,65 tahun. Sebagian besar subyek adalah ibu rumah tangga dengan aktivitas di dalam ruangan. Kadar 25(OH)D serum menurun yaitu dengan rerata 11,3 ± 5,6 ng/mL. Subyek penelitian dalam kondisi aktif dan tidak aktif dengan dengan median skor SLAM yang rendah yaitu 17,5 (1-39). Kadar 25(OH)D serum berkorelasi negatif dengan aktivitas penyakit SLE ($p < 0,01$; $r = -0,661$). Kadar 25(OH)D serum tersebut juga berkorelasi negatif dengan CRP ($p < 0,05$; $r = -0,414$) dan berkorelasi positif dengan C3 ($p < 0,01$; $r = 0,538$) dan C4 ($p < 0,05$; $r = 0,356$).

Kesimpulan: Terdapat korelasi negatif yang bermakna antara kadar 25(OH)D dengan aktivitas penyakit yang dinilai dengan skor SLAM pada penderita SLE.

Kata kunci: SLE, aktivitas penyakit, 25(OH)D

ABSTRACT

Correlation of 25(OH)D Levels and Systemic Lupus Erythematosus Diseases Activity

Rizqi Wachida

Introduction. Systemic Lupus Erythematosus (SLE) is an autoimmune disease that occurs when an immune response recognizes self-antigens due to loss of self-tolerance resulting in tissue damage, and is influenced by environmental factors. One such environmental factor is Vitamin D. Vitamin D is an immunomodulator and plays an important role in the pathogenesis of SLE. Hypovitaminosis D is thought to increase SLE disease activity which in this study was assessed using SLAM scores.

Objective. To analyze the correlation of 25(OH)D serum levels with disease activity using the SLAM score on SLE patients.

Methods. Observational analytic research with cross-sectional design conducted at the Outpatient and Inpatient Installation of RSUD Dr. Soetomo Surabaya on 40 research subjects diagnosed with SLE based on the 1997 ACR criteria. All subjects were assessed for disease activity with SLAM scores and examined 25(OH)D levels in serum using the Architect brand instrument with CMIA (chemiluminescent microparticle immunoassay) instruments. Data analysis using the Spearman correlation test, was considered significant if $p < 0.05$.

Results. From 40 research subjects, all were women with an average age of 27.43 ± 8.65 years. Most subjects are housewives with indoor activities. 25(OH)D serum levels decreased, with a mean of 11,3 ± 5,6 ng / mL. The study subjects were active and inactive with a low SLAM median score of 17.5 (1-39). 25(OH)D serum levels were negatively correlated with SLE disease activity ($p < 0.01$; $r = -0.661$). 25(OH)D serum levels were also negatively correlated with CRP ($p < 0.05$; $r = -0.414$) and positively correlated with C3 ($p < 0.01$; $r = 0.538$) and C4 ($p < 0.05$; $r = 0.356$).

Conclusion. There are significant negative correlation of 25(OH)D serum levels with disease activity using the SLAM score on SLE patients.

Keywords. SLE, disease activity, 25(OH)D