

# Korelasi kadar 25-hydroxy vitamin D serum dengan aktivitas penyakit pada pasien urtikaria kronik di poliklinik dermatologi dan venereologi, RSUPN Dr. Cipto Mangunkusumo = Correlation of serum 25-hydroxy vitamin-D levels with disease activity in chronic urticaria patients at dermatology and venereology outpatient, Dr. Cipto Mangunkusumo General Hospital

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## Abstrak

Latar belakang: Saat ini, peran vitamin D dalam berbagai penyakit kronis banyak diteliti. Vitamin D dianggap memiliki efek imunomodulator sehingga diduga berkaitan dengan beberapa penyakit alergi dan autoimun, termasuk urtikaria kronik. Terdapat laporan kadar vitamin D yang rendah pada pasien urtikaria kronik dan suplementasi vitamin D terbukti memperbaiki gejala urtikaria kronik yang dinilai dengan kuesioner yang sudah tervalidasi Urticaria activity score 7 (UAS7). Namun, penelitian mengenai korelasi kadar vitamin D serum dengan aktivitas penyakit urtikaria masih terbatas, terutama di Indonesia.

Tujuan: Menganalisis korelasi kadar vitamin D (25[OH]D) serum dengan aktivitas penyakit pada pasien urtikaria kronik.

Metode: Penelitian deskriptif-analitik dengan desain potong lintang. Tiga puluh pasien urtikaria kronik usia 18–59 tahun yang memenuhi kriteria penerimaan dan penolakan direkrut dalam penelitian ini. Penilaian aktivitas penyakit menggunakan UAS7 dan dilakukan pengukuran kadar 25(OH)D serum. Korelasi kadar 25(OH)D serum dan aktivitas penyakit dilakukan dengan menggunakan analisis Spearman. Penelitian ini juga menilai kecukupan pajanan matahari menggunakan kuesioner pajanan matahari mingguan.

Hasil: Rerata skor UAS7 adalah  $14,63 \pm 7,8$ , median durasi penyakit adalah 12 (2–120) bulan, median skor pajanan matahari mingguan adalah 8 (2–34), dan median kadar 25(OH)D serum adalah 12,10 ng/mL (6,85–29,87). Mayoritas subjek mengalami defisiensi vitamin D (80%). Tidak terdapat korelasi antara kadar 25(OH)D serum dengan aktivitas penyakit ( $r=0,151$ ;  $p=0,425$ ), tetapi didapatkan korelasi negatif kuat yang bermakna pada kelompok defisiensi vitamin D berat ( $r=-0,916$ ;  $p=0,001$ ). Terdapat korelasi positif sedang bermakna antara aktivitas penyakit dan durasi penyakit ( $r=0,391$ ;  $p=0,033$ ). Pada kuesioner pajanan sinar matahari mingguan, didapatkan perbedaan bermakna skor bagian tubuh yang terpajan matahari antar kelompok insufisiensi dan defisiensi vitamin D ( $p=0,031$ ).

Kesimpulan: Tidak terdapat korelasi kadar 25(OH)D serum dengan aktivitas penyakit pasien urtikaria kronik, namun terdapat kecenderungan peningkatan aktivitas penyakit pada kelompok defisiensi berat vitamin D.

.....Background: Nowadays, the role of vitamin D in various chronic diseases is a matter of great interest. Vitamin D is thought to have an immunomodulatory effect so it is thought to be associated with several allergic and autoimmune diseases, including chronic urticaria. There have been reports of low vitamin D levels in patients with chronic urticaria and vitamin D supplementations has been shown to improve symptoms of chronic urticaria which was assessed by a validated questionnaire Urticaria activity score 7 (UAS7). However, data on the correlation between serum vitamin D levels and disease activity in chronic urticaria are still limited, especially in Indonesia.

**Objective:** To analyze the correlation between vitamin D (25[OH]D) serum and disease activity in chronic urticaria patients.

**Methods:**

This is an analytic-descriptive cross-sectional study. Thirty chronic urticaria patients age 18 – 59 years old who meet all inclusion and exclusion criterias were recruited in this study. Assessment of disease activity using UAS7 and measurement of 25(OH)D serum levels were performed. Correlation of 25(OH)D serum levels and disease activity was done using Spearman analysis. In this study, an assessment of sun exposure adequacy was carried out using a weekly sunlight exposure questionnaire.

**Results:** The mean of UAS7 was  $14.63 \pm 7.8$ , median duration of illness was 12 (2 – 120) month, median weekly sunlight exposure score was 8 (2 – 34), and the median serum 25(OH)D was 12.10 ng/mL (6.85 – 29.87). The majority of subjects had vitamin D deficiency (80%). There was no correlations between serum 25(OH)D levels and disease activity ( $r=0.151$ ;  $p=0.425$ ). However, a significant negative correlation was found in severe deficiency vitamin D group ( $r=-0.916$ ;  $p=0.001$ ). There was also significant moderate correlation between disease activity and duration of illness ( $r=0.391$ ;  $p=0.033$ ). In weekly sunlight exposure questionnaire, we found that body surface area score was significantly different between insufficiency and deficiency vitamin D groups ( $p=0,031$ ).

**Conclusion:** There was no correlation between serum 25(OH)D levels and disease activity in chronic urticaria patients, however there was a tendency of increasing disease activity in severe deficiency vitamin D group