

ABSTRAK

**Korelasi Kadar Vitamin D Awal dengan Perubahan Jumlah CD4
pada Pasien HIV Naïve yang Mendapat Terapi ARV**

Rosita Rahmawati Baskoro

Latar Belakang : Berbagai penelitian melaporkan adanya hubungan antara vitamin D dengan kadar CD4. Namun di sisi lain, terdapat penelitian yang melaporkan penggunaan obat ARV golongan NNRTI dan PI akan menurunkan kadar vitamin D. Penelitian ini bertujuan menganalisis korelasi kadar vitamin D awal dengan perubahan jumlah CD4 setelah 3 bulan terapi ARV pada pasien HIV naïve dewasa.

Metode : Penelitian dilakukan secara kohort analitik observasional kepada pasien HIV naïve. Pada seluruh subjek diperiksa kadar 25(OH)D dan jumlah CD4 awal serta diberikan terapi ARV lini pertama berupa tenofovir, lamivudin dan efavirenz. Seluruh subjek diobservasi dan diperiksa kadar 25(OH)D dan jumlah CD4 evaluasi setelah 3 bulan terapi ARV.

Hasil : Dari 24 subjek penelitian, 67% berjenis kelamin laki-laki, dengan nilai tengah usia 30 tahun dan 71% HIV stadium 1. Tidak didapatkan perbedaan bermakna pada kadar 25(OH)D setelah terapi ARV 3 bulan ($p=0,275$), dengan rerata kadar 25(OH)D awal $20,48 \pm 3,18$ ng/ml dan $19,78 \pm 4,47$ ng/ml setelah 3 bulan terapi ARV. Didapatkan perbedaan bermakna pada jumlah CD4 setelah 3 bulan terapi ARV ($p < 0,001$) dengan rerata jumlah CD4 awal $283,1 \pm 169,9$ sel/ μ l dan meningkat menjadi $415,6 \pm 239,1$ sel/ μ l setelah 3 bulan terapi ARV. Didapatkan adanya korelasi sedang yang bermakna antara kadar 25(OH)D awal dengan perubahan jumlah CD4 ($r = 0,407$, $p = 0,048$).

Kesimpulan : Terapi ARV berpengaruh terhadap peningkatan jumlah CD4 namun tidak berpengaruh bermakna terhadap kadar 25(OH)D. Kadar 25(OH)D awal memiliki korelasi sedang yang bermakna dengan peningkatan jumlah CD4.

Kata kunci : HIV, CD4, ARV, Vitamin D, 25(OH)D.

ABSTRACT

***Correlation of Initial Vitamin D Levels with Changes in CD4 Cell Counts
in HIV naïve Patients Receiving ARV Therapy***

Rosita Rahmawati Baskoro

Background : *Various studies have reported an association between vitamin D and CD4 levels. On the other hand, there are studies that report the use of NNRTI and PI of ARV drugs will reduce vitamin D level. This study was designed to analyze the correlation of initial vitamin D level with changes of CD4 cells count after 3 months of ARV therapy in HIV naïve adult patients.*

Methods : *This was an observational analytic cohort study of HIV naïve patients who were tested for initial 25(OH)D level and CD4 cell count, then given first-line ARV therapy in combination of tenofovir, lamivudine, and efavirenz. All subjects were then tested for 25(OH)D level and CD4 cell count after 3 months of ARV therapy.*

Result : *From 24 subjects, 67% were male, with median age was 30 years and 71% were at stage 1 HIV. There was no significant difference in levels of 25(OH)D after 3 months of ARV therapy ($p = 0.275$,) with initial mean levels of 25(OH)D was 20.48 ± 3.18 ng/ml and 19.78 ± 4.47 ng/ml after 3 months of ARV therapy. There was a significant difference in changes of CD4 cell count after 3 months of ARV therapy ($p < 0.001$) with mean initial CD4 cell count was $283,1 \pm 169,9$ sel/ μ l and increasing to $415,6 \pm 239,1$ sel/ μ l after 3 months of ARV therapy. A significant moderate correlation was found between initial 25(OH)D level and changes in CD4 cells count ($r = 0.407$, $p = 0.048$).*

Conclusions : *ARV therapy has an effect on increasing CD4 cell count but has no significant effect on 25(OH)D levels. Initial 25(OH)D levels had a significant moderate correlation with CD4 cells count changes*

Keywords : *HIV, CD4, ARV, Vitamin D, 25(OH)D.*