HUBUNGAN ASUPAN ZAT GIZI DAN STADIUM KLINIS TERHADAP STATUS GIZI DAN JUMLAH CD4+ PADA HIV ANAK

Studi Kasus di Wilayah Kota dan Kabupaten Semarang

THE CORRELATION BETWEEN INTAKE NUTRITION AND CLINICAL STAGE OF NUTRITIONAL STATUS AND CD4+ COUNT FOR CHILDREN WITH HIV

Case study in the City and Regional District of Semarang

Untuk memenuhi sebagian persyaratan
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ABSTRAK

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Studi Kasus di Kabupaten dan Kota Semarang

Waisaktini Margareth[1], Soeharyo Hadisaputro[2], Ani Margawati[3]

Latar Belakang : Peningkatan infeksi HIV anak di Indonesia searah dengan peningkatan prosentase penularan AIDS dari ibu ke anaknya dari 3% (2013) menjadi 4,6% (2015). HIV anak menjalani terapi antiretroviral (ARV) untuk meningkatkan jumlah sel T-CD4+. Stadium klinis berat pada HIV anak menurunkan jumlah CD4+. Pemberian suplementasi zat gizi makro dan mikro dapat meningkatkan status gizi HIV anak yang menjalani ARV.

Tujuan : Menganalisis hubungan asupan zat gizi dan stadium klinis terhadap status gizi dan jumlah CD4+ pada HIV anak di Kota dan Kabupaten Semarang.

Metode : Penelitian ini menggunakan desain *cross-sectional*. Subjek yaitu anak usia 1-14 tahun sebanyak 31 subjek. Data dikumpulkan meliputi tinggi badan (TB), berat badan (BB), asupan zat gizi diperoleh dengan metode *food recall* 2x24 jam. Jumlah CD4+ melalui pemeriksaan darah subjek. Data dianalisis menggunakan uji *Chi-square* dan Regresi Logistik untuk menghitung *Prevalence Rasio* (PR)

Hasil : Asupan seng memberikan risiko bermakna terhadap kejadian berat badan rendah (PR=3,020; p=0,029; CI=1,043-8,739). Asupan protein dan vitamin A memberikan risiko bermakna terhadap jumlah CD4+ rendah (PR=3,036; p=0,021; CI=1,211-7,608 dan PR=2,8; p=0,018; CI=1,331-5,891). Asupan vitamin C bukan faktor risiko tetapi berhubungan terhadap jumlah CD4+ rendah (PR=4,522; p=0,045; CI=0,698-29,282). Stadium klinis sedang memberikan risiko bermakna terhadap jumlah CD4+ rendah (PR=8,211; p = 0,004; CI=1,227-54,962). Probabilitas HIV anak mengalami jumlah CD4+ rendah ketika mengalami stadium klinis berat sebesar 14,3%.

Simpulan : Stadium klinis sedang meningkatkan risiko terjadinya jumlah CD4+ rendah (<500sel/mm^3).

Kata Kunci : HIV anak, berat badan rendah, *stunting*, jumlah CD4+, asupan gizi, stadium klinis

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ABSTRACT

THE CORRELATION BETWEEN INTAKE NUTRITION AND CLINICAL STAGE OF NUTRITIONAL STATUS AND CD4+ COUNT FOR CHILDREN WITH HIV

Case study in Regional District and the City of Semarang

Waisaktini Margareth[1], Soeharyo Hadisaputro[2], Ani Margawati[3]

Background: *The increase in HIV-infected children in Indonesia in line with the increase percentage of HIV positive children from mother to child transmission from 3% (2013) to 4.6% (2015). HIV-infected children using antiretroviral therapy (ARV) to increase the T-cells CD4+ count in HIV-infected children patients. Clinical stage heavily on lowering the CD4+ count for HIV-infected children. Supplementation of macro and micro nutrients can improving the nutritional status of children using antiretroviral HIV.*

Objectives: *To analyze the relationship of nutrient intake and nutritional status of the clinical stage and CD4 counts for HIV-infected children in the City and Country of Semarang.*

Methods: *The study used cross-sectional design. The subject of 31 HIV-infected children aged 1-14 years. Data collected included height, body weight, nutrient intake obtained by the method of Food Recall 2x24 hours. The number of CD4+ through a blood test subjects.Data were analyzed using Chi Square test and logistic regression to calculate the Prevalence Ratio (PR).*

Results: *The intake of zinc significantly increases the risk of underweight (PR = 3.020; p = 0.029; CI = 1.043 to 8.739). The intake of protein and vitamin A significantly increase the of low CD4+ count (PR = 3.036; p = 0.021; CI = 1.211 to 7.608 and PR = 2.8; p = 0.018; CI = 1.331 to 5.891). The intake of vitamin C is not a risk factor, but related low CD4+ count (PR = 4.522; p = 0.045; CI = 0.698 to 29.282). The severe clinical stage signicantly increase the risk of low CD4+ count (PR = 8.211; p = 0.004; CI = 1.227 to 54.962). The probability of HIV-infected children have a low CD4+ count when subjected to severe clinical stage of 14.3%.*

Conclusions: *The Clinical stage was increasing the risk of CD4 + low (<500 cell / mm^3)*

Keywords: *HIV-infected children, underweight, stunting, CD4+ count, nutrition, clinical stage*

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