PERAN IMUNOGLOBULIN E PADA *PRURITIC PAPULAR ERUPTION* PENDERITA *HUMAN IMMUNODEFICIENCY VIRUS*

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INTISARI

Latar Belakang: Infeksi *Human Immunodeficiency Virus* (HIV) dan penyakit *Acquired Immune Deficiency Syndrome* (AIDS) menjadi salah satu masalah kesehatan utama di seluruh dunia. Terdapat perubahan peran potensial T *Helper*2 (T_H2) yang dominan selanjutnya diikuti dengan meningkatnya sekresi Interleukin (IL)-4 dan IL-5 yang berperan dalam produksi imunoglobulin E (IgE). Perubahan ini dapat menimbulkan beberapa manifestasi kulit diantaranya adalah *pruritic papular eruption* (PPE). Masih belum banyak penelitian yang menilai kadar IgE total serum penderita HIV dengan kelainan PPE.

Tujuan: Penelitian ini bertujuan untuk mengetahui peran kadar IgE total serum pada PPE penderita HIV/AIDS.

Metode: Penelitian ini merupakan penelitian kasus kontrol. Subyek diambil dari RSUP Dr.Sardjito dan puskesmas Gedongtengen Yogyakarta yang telah memenuhi kriteria inklusi dan eksklusi. Kadar IgE total serum diukur menggunakan metode ELFA. Analisis bivariat perbedaan rerata kadar IgE total serum kedua kelompok menggunakan *Mann-Whitney test.* Analisis perbedaan karakteristik subyek menggunakan *Chi-Square test* dengan kemaknaan $p < 0,05$.

Hasil : Jumlah total subyek penelitian 58 subyek, terdiri 29 subyek PPE sebagai kelompok kasus dan 29 subyek non-PPE sebagai kelompok kontrol. Terdapat perbedaan bermakna kadar IgE total serum ($p = 0,036$) dan jumlah sel T CD4 ($p = 0,048$) yang menunjukkan hubungan bermakna dengan kejadian PPE. Kadar IgE total serum > 150 kIU/L dan jumlah limfosit CD4 < 200 sel/mm^3 meningkatkan risiko terjadinya PPE pada tiap penderita HIV/AIDS masing-masing 4,2 kali (OR = 4,202; 95% CI: 1,100-16,056) dan 4,7 kali (OR = 4,760; 95% CI: 1,014-22,347).

Kesimpulan : Kadar IgE total serum dengan kadar > 150 kIU/L meningkatkan risiko kejadian PPE 4,2 kali dan jumlah sel T CD4 dengan jumlah < 200 sel/mm^3 pada HIV/AIDS berisiko mengalami PPE dan IgE 4,7 kali.

Kata kunci: HIV, *Pruritic Papular Eruption*, imunoglobulin E.

THE ROLE OF IMMUNOGLOBULINE E IN PRURITIC PAPULAR ERUPTION HUMAN IMMUNODEFICIENCY VIRUS PATIENTS

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ABSTRACT

Background: Human Immunodeficiency Virus (HIV) infection and Acquired Immune Deficiency Syndrome (AIDS) are major health problems throughout the world. There is a change in the potential role of the dominant T Helper 2 (T_H2), followed by increased secretion of interleukin (IL)-4 and IL-5 which play a role in the production of immunoglobulin E (IgE). These changes can cause several skin manifestations including pruritic papular eruption (PPE). PPE is a manifestation of non-infectious skin disorders that are often found in people with HIV / AIDS who have chronic pruritus characteristics and symmetrical papule eruptions on the body and extremities. There are still not many studies that assess IgE levels in HIV sufferers with PPE disorders.

Objective: To determine the role of IgE levels in PPE patients with HIV/AIDS.

Method: This research is a case control study. Subjects were taken from RSUP Dr.Sardjito and Puskesmas Gedongtengen Yogyakarta which had met the inclusion and exclusion criteria. Total serum IgE levels were measured using the VIDAS® tool. Bivariate analysis of differences in mean total serum IgE levels between the two groups used the Mann-Whitney test. Analysis of differences in the characteristics of subjects using the Chi-Square test with a significance of $p < 0.05$.

Result : This study included 58 subjects, consisting of 29 PPE subjects as the case group and 29 non-PPE subjects as the control group. There were significant differences in total serum IgE levels ($p = 0.036$) and the number of CD4 T cells ($p = 0.048$) which showed a significant relationship with the incidence of PPE. Total serum IgE level > 150 kIU/L and CD4 T cell with count < 200 cells / mm^3 increased the risk of developing PPE in each HIV / AIDS patient by 4,2 times (OR = 4,202; 95% CI: 1,100-16,056) and 4,7 times (OR = 4,760; 95% CI: 1,014-22,347).

Conclusion : Total serum IgE levels > 150 kIU/L increased the risk of PPE incidence 4.2 times and CD4 T cell counts with a count < 200 cells / mm^3 in HIV / AIDS were at risk of developing PPE and IgE 4,7 times.

Keyword: HIV, Pruritic Papular Eruption, immunoglobulin E