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Pengaruh pemberian probiotik (lactobacillus reuteri) terhadap T regulator pada penderita sle dengan manifestasi ringan = Effect of probiotic (lactobacillus reuteri) administration on regulatory T cell in sle with mild manifestation / Deshinta Putri Mulya

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Abstrak

[ABSTRAK
Latar Belakang : Pada penderita Systemic Lupus Erythematosus (SLE) terdapat defek pada sel T regulator baik dalam hal jumlah maupun fungsi sel T regulator. Pemberian probiotik dalam hal ini pemberian Lactabacillus reuteri diharapkan mampu menstimulasi timbulnya respon imun yang bersifat imunoregulator dengan cara meningkatkan jumlah sel T regulator dan menurunkan produksi IL6. Tujuan : Mengetahui pengaruh pemberian probiotik terhadap toleransi sistem imun penderita SLE melalui perubahan kadar T regulator (CD4+CD25+Foxp3+) dan IL 6. Metode :30 subjek pasien SLE dengan manifestasi ringan yang datang ke poliklinik Alergi Imunologi RSCM, diberikan probiotik Lactobacillus reuteri (15 orang) dan placebo (15 orang) selama 8 minggu. CD4+CD25+FoxP3+ dan IL 6 diperiksa sebelum dan sesudah perlakuan menggunakan flowcytometri dan pemeriksaan ELISA. Hasil : Pemberian Lactobacillus reuteri selama 8 minggu meningkatkan kadarCD4+CD25+FoxP3+secara bermakna (1,38+ 8,36% VS 3,71+3,17% ; P=0,007 ; CI =-3,91 ? -0,74) . Terdapat penurunan kadar IL 6 setelah perlakuan, baik pada kelompok yang diberikan Lactobacillus reuteri (4,76+5,75 pg/ml VS 3,7 +3,36 pg/ml ; P=0,25 ; CI -0,83- 2,9) maupun pada kelompok placebo (2,6+2,02 pg/ml VS 2,07+2,39 ; P= 0,35 ; CI = -0,57 ? 1,52). Namun begitu, pada akhir penelitian perubahan tersebut tidak menimbulkan perbedaan bermakna kadar CD4+CD25+FoxP3+dan IL 6antara kedua kelompok. Kesimpulan :Terjadi peningkatan bermakna kadar CD4+CD25+FoxP3+ pada kelompok yang diberikan probiotik Lactobacillus reuteri selama 8 minggu.
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ABSTRACT
Backgroud : In patients with Systemic Lupus Erythematosus (SLE) there are abnormality on T lymphocytes, including the existence of a defect in the regulatory T cells both in terms of number and function. Giving probiotic, in this case Lactabacillus reuteri administration, is expected to stimulate the immune response to be more tolerance by increasing the number of regulatory T cells and decreasing the IL6 production.
Aim : To know the effect of probiotic (Lactobacillus reuteri) on the immune system of patients with SLE through changes in the levels of regulatory T cells (CD4+CD25+ Foxp3+) and IL 6
Method :Thirty ofSLE patients with mild manifestations, who came to Allergy and Immunology Clinic of Cipto Mangunkusumo Hospital, were given the probiotic Lactobacillus reuteri (15 people) and placebo (15 people) for 8 weeks. CD4+ CD25 + FoxP3+ and IL 6 were examined before and after exposure using flowcytometri and ELISA. We then analyzed the levels of CD4 + CD25 + FoxP3 + and IL6 before and

after exposure.
Result : Administration of Lactobacillus reuteri for 8 weeks brought statistically significant improvement on CD4+ CD25 + FoxP3 +level (1,38+ 8.36% + 3.17% vs. 3.71; P = 0.007; CI = -3.91 - -0.74). There were decreased level of IL 6 in Lactobacillus reuteri group (4.76 + 5.75 pg / ml VS3,71 + 3.36 pg / ml; P = 0.25; CI - 0,83- 2, 9) and the placebo group (2.6 + 2.02 pg / ml vs. 2.07 + 2.39; P = 0.35; CI = - 0.57 - 1.5). However,at the end of study, those changes didn?t make statistically significant difference of CD4+CD25+FoxP3+ and IL 6 level between two group.
Conclusion : A significant increase of the levels of CD4 + CD25 + FoxP3 + were found after 8 weeks Lactobacillus reuteri administration, Backgroud : In patients with Systemic Lupus Erythematosus (SLE) there are
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