



ATOPIC ECZEMA/DERMATITIS

THE BENEFICIAL EFFECT OF LACTOBACILLUS PLANTARUM IS-10506 SUPPLEMENTATION IN ADULTS WITH ATOPIC DERMATITIS: A RANDOMIZED CONTROL TRIAL

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Background: The therapeutic effects of probiotics in atopic dermatitis (AD) have demonstrated, but there are only few studies in adults and the results are inconsistent. Lactobacillus plantarum IS-10506 is a novel probiotic isolated from dadih, an Indonesian traditional fermented buffalo milk was found to improve AD symptom due to immunomodulatory effects.

Objective: To asses Scoring Atopic Dermatitis Index (SCORAD) and serum immunoglobulin E (IgE), interleukin (IL)-4, interferon gamma (IFN- γ), forkhead box P3 (Foxp3+), and IL-17 levels were assessed. After supplementation of L. plantarum IS-10506 in adults with mild and moderate AD.

Materials and Methods: a randomized double-blind placebo-controlled trial comparing the microencapsulated probiotic at a dose of 2x10¹⁰ cfu/day and placebo (skim milk-Avicel) twice daily for 8 weeks was conducted in an outpatient clinic on adults with mild and moderate AD. The trial included 30 AD children divided into intervention and control groups of n=15 and n=15 patients.

Results: SCORAD scored lower significantly in the probiotic group than those in the placebo group on the 4th week (p 0.040) and 8th week (p 0.022). The levels of IL-4 (p 0.000) and IL-17 (0.009) were significantly lower in the probiotic group than those in the placebo group. The levels of IFN- γ (p 0.000) and Foxp3+ (p. 0.008) was significantly higher in the probiotic group than that in the placebo group. While the IgE levels were not significantly changed.

Conclusions: Administration of Lactobacillus plantarum IS-10506 was effective for AD symptom in adults due to immunomodulatory effects.

