

Supplementation with *Bacillus clausii* Doesnot Improve the Therapeutic Outcomes in Atopic Eczema – Results of an Observer Blinded Parallel Group Randomized Controlled Study

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Background: Atopic dermatitis (or atopic eczema or AD) is an itchy, chronic, or chronically relapsing, inflammatory skin condition

Objective: To study the effectiveness of probiotics supplementation (*Bacillus clausii*) in achieving clinical remission, preventing relapse and its effect on immunological profile in children with AD.

Methods: In this randomized controlled study where one hundred and fourteen patients of atopic dermatitis aged 6 months to 12 years were recruited and randomly allocated into two groups comprising 57 each with Group A receiving conventional treatment with probiotics and group B receiving only conventional treatment. Baseline SCORAD and follow up SCORAD at 4, 8, 12, 16, 20 and 24 weeks were measured. IL-17A levels were measured at baseline and 12 weeks.

Results: There was no any significant difference in the main clinical outcome (SCORAD) by administration of *Bacillus clausii* in children with AD between group A receiving probiotics along with conventional treatment and group B receiving only conventional treatment at 12 weeks ($p=0.21$), and at 24 weeks ($p=0.26$). IL-17A levels were not significantly different between two groups after the probiotics supplementation at 12 weeks ($p=0.7$). The mean IL-17A level decreased from baseline in Group A with probiotic supplementation whereas the mean IL-17A concentration increased in group B at 12 weeks though the mean difference between two group was not significant. There was no statistically significant correlation between IL-17A levels and AD severity.

Conclusion: Supplementation with the probiotic *Bacillus clausii* to conventional treatment does not offer any additional benefit in inducing remission or prevention relapse in AD.

Biography:

Dr. Richa Sharma is from Nepal & currently practicing as a consultant dermatologist in private clinic. She did her post graduation from a renowned center i.e Postgraduate Institute of Medical Education and Research (PGIMER) which is a course of 3 years duration during which she worked in the department of Dermatology, venereology and leprology. She did her thesis on this particular topic on probiotics in allergic disease.