

Protective effects of probiotics in preschool children in and Urban Slum in India

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The protective effect of probiotics on diarrhea and fever in preschool children was studied in a community setting of a developing country. A double blind randomized controlled trial was carried out in 379 healthy preschool children (2-5 years) in an Urban Slum in India. Three randomly allocated groups of children received one of two probiotics, *Lactobacillus paracasei* Lpc-37 (n=125) or *Bifidobacterium lactis* HN019 (n=130) or placebo (n=124) for a period of 9 months and were assessed for weight gain, linear growth and incidence of diarrhea and fever. Both probiotics Lpc-37 and HN019 supplemented for a period of 9 months did not have any influence on weight gain or linear growth. There was no significant difference between the groups in incidence of diarrhea and fever over the whole study period. However, during the wet season, in the months of August-September, incidence of diarrhea was significantly higher in placebo group (16.9%) compared to Lpc-37 (11.7 %) and HN019 groups (8.4 %). Similarly, the incidence of fever was significantly higher in the placebo group (11.5%) compared to the Lpc-37 group (7%) and HN019 group (7.3%). Probiotic supplementation had no effect on calprotectin, but fecal IgA and serum IL8 were decreased significantly in HN019 group compared to placebo.

Conclusion: Supplementation of probiotics reduced the incidence of diarrhea and fever during the wet season in an Urban Slum of a Developing country.

Biography

Arthur C. Ouwehand received his Ph.D. from Goteborg University (Sweden) and did his post-doc and Turku University (Finland). He has published more than 200 articles; mainly on probiotics and is the editor of 3 books on probiotics/lactic acid bacteria. Arthur works as a Research Manager at DuPont Nutrition & Health, but is also Associate Professor at University of Turku.

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