

Clinical Effect of *Bifidobacterium bifidum* BGN4-Containing Probiotic Products on the Suppression of Atopy and Irritable Bowel Syndrome

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Bifidobacterium strains are used in various probiotic products and have been suggested to exert health promoting effects on the human host. Among various strains of *Bifidobacterium*, *B. bifidum* BGN4 showed the highest production of S-adenosyl-L-methionine (SAM), cytotoxicity against adenocarcinoma cell lines, immunoregulatory activities in various models, and high adhesion to a human enterocyte cell line, Caco-2. We assessed the efficacies of the probiotic products against the occurrences of the atopy in young infants and of the irritable bowel syndromes in adults, respectively, in double-blind, randomized placebo-controlled human trials. When administered with combination of *B. bifidum* BGN4, *B. lactis* AD011 and *Lactobacillus acidophilus* AD031 the prevalence of AD in 12-month-old infants in the probiotics-supplemented group was significantly lower than that in the placebo group (18.2% vs. 40.0%, $p=0.048$). The cumulative incidence of AD during the first 12 months was reduced significantly in supplemented infants (36.4% vs. 62.9%, $p=0.029$). In another experiment, the administration of probiotics (*B. bifidum* BGN4, *B. lactis* AD011, *L. acidophilus* AD031, and *L. casei* IBS041) lowered the pain score significantly in irritable bowel syndrome patients and increased the bowel movement comfortability when assessed at 4 weeks and 8 weeks after administration.

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References

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