Effect of fermented soy milk on the intestinal bacterial ecosystem

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Abstract

AIM: To investigate the effect of fermented soy milk on human ecosystem in the intestinal tract by way of examining the population of different microorganisms isolated from fecal samples. METHODS: A crossover experimental design was applied. Twenty-eight healthy adults completed this experiment. Each subject consumed 250 mL, twice a day between meals, of either fermented soy milk or regular soy milk first for 2 wk, then switched to the other drink after 2 wk. Fecal samples were collected from all subjects every week starting from the second week to the end of the experiment. The microorganisms analyzed were Bifidobacterium spp., Lactobacillus spp., Clostridium perfringens, coliform organisms, and total anaerobic organisms. RESULTS: In the period of fermented soy milk consumption, the populations of Bifidobacterium spp. and Lactobacillus spp. increased ($P<0.05$) as well as the ratios of Bifidobacterium spp. and Lactobacillus spp. to Clostridium perfringens ($P<0.05$). The population of coliform organisms decreased ($P<0.05$) when subjects were in the period of fermented soy milk consumption. CONCLUSION: Intake of fermented soy milk significantly improved the ecosystem of the intestinal tract in the body by increasing the amount of probiotics.