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Prebiotic supplementation improves colonization of *Bifidobacteria* and LAB in human gut of obese subjects of urban Baroda, India

Mini Sheth

The M.S. University, India

Obesity has reached an epidemic proportion worldwide and is contributing to global burden of chronic diseases and disability. Studies on animal models have revealed that intake of Prebiotics lead to improvement in the gut health and its associated diseases. In view of this a double blind placebo control trial was designed with 60 obese adults enrolled from an industrial setting. The experimental group (n=30) was given 12 g of FOS in the powdered form to be consumed in two doses of 6 g each, while the placebo group (n=30) received similar quantity of dextrose. The anthropometric parameters studied were Wt, Ht, BMI, WC, WHR, body fat. The fecal samples of the subjects were studied for changes in colonization of LAB, *Bifidobacteria* and Enteric pathogens in the gut of the subjects. The results revealed that the mean BMI of the subjects at the baseline was 30.87. A significant ($p<0.01$) improvement was observed in the *Bifidobacteria* and LAB count of the supplemented obese subjects by 1.3 log cycles and 1.49 log cycles respectively and the enteric pathogens count decreased by 0.81 log cycles. FOS supplementation did not result in any significant reduction in Wt, BMI, body fat over two months period. The WHR of the supplemented subjects however reduced by 2.01%.

12 g of FOS supplementation for a period of 2 months does not change the body weight of the obese subjects significantly but improves the Gut health in terms of colonization of beneficial bacteria and reduces establishment of enteric pathogens.

Biography

Presently working as an associate professor at the Department of Foods and Nutrition of the M.S.University of Baroda India. Obtained Ph D degree in Foods and Nutrition in 1994 and teach **food microbiology**, human nutrition and diet therapy. I have been recognized as member of Task force on Probiotics, by the International life science Institute (ILSI) India, Since February 2001. Reviewer for manuscripts submitted to Journal of food safety, Journal of food science and technology and Asian journal of home science; have more than 40 research publications in peer reviewed journals. My research interests include role of prebiotics in health and diseases and Food safety.

shethmini@gmail.com, mkss7@hotmail.com