

Probiotics Beat Infant Infection – Prebiotic Fibers Feed Probiotics

26/6/2003

Supplementing infant formula with probiotics may be a safe and effective way to boost the immune system in day care infants, suggest two new studies. BioGaia's human strain *L. reuteri* ATCC 55730 was found to be particularly effective.

Day care infants have a higher risk of gastrointestinal (GI) and respiratory infections. Scientists from the Pediatric Gastroenterology and Nutrition Unit, Soroka Medical Center, Ben-Gurion University, Beer-Sheva in Israel led by Ghaleb Asli, set out to see whether probiotic bacteria, which improve the intestinal microbial balance, could therefore beneficially affect the immune response and thus reduce such infections.

In a prospective double-blind placebo-controlled trial, full-term healthy infants between 4-10 months of age, were randomly assigned to receive a formula - Materna Primium II provided by Materna Laboratories, Maabarot, Israel - supplemented with either *Bifidobacterium lactis* or BioGaia's *Lactobacillus reuteri*, or the same diet without probiotics, for 12 weeks.

Symptoms, signs, growth, feeding, stooling and behavior were then monitored, while all three groups were initially similar with regard to gestational age, birth weight and male/female ratio.

According to the researchers, infants fed a probiotics-supplemented formula exhibited less febrile episodes and fewer GI illnesses. In addition they noted that this effect was more prominent in the *Lactobacillus reuteri* group. However, there was no significant effect on respiratory illnesses.

No significant differences were noted either between groups regarding growth or characteristics of feeding, stooling, and behavior. Despite infant and follow-up formula supplemented with probiotics being currently marketed in Europe and Japan, the researchers note that data regarding the safety of these products in early infancy are limited.

Therefore, a second study carried out by Ahmed Alsheikh and his team also at the Ben-Gurion University, Beer-Sheva in Israel evaluated the safety of two strains of probiotics, *Bifidobacterium lactis* (Bb-12) and *Lactobacillus reuteri*, in early infancy.

In a prospective double-blind placebo-controlled trial, 60 full-term healthy infants between three - 65 days of age, 20 in each group, were randomly assigned to receive Materna Primium infant formula supplemented with either *Bifidobacterium lactis* (Bb-12) or *Lactobacillus reuteri*, or the same diet without probiotics, for 60 days. Growth, feeding, stooling and behavior characteristics were monitored with a weekly physical examination. Infants in all three groups were initially similar with regard to age, birth weight and male/female ratio.

The researchers reported no significant differences between groups regarding growth or characteristics of feeding, stooling, and behavior. Just one episode of acute illness was noted in each group, while no adverse effects were noted, resulting in the researchers pronouncing the probiotic strains as clinically safe for use in infants.

'Infant Formula Supplemented with Probiotics Reduces Gastrointestinal Infections' Rate in Day Care Infants' was presented at ESPGHAN in Prague June 2003. 'Safety of Infant Formula Supplemented with Probiotics in Early Infancy' was presented at the Pediatric Academic Societies Annual Meeting in the US in May 2003