primary studies - published RCT

Effect of Lactobacillus GG supplementation on pulmonary exacerbations in patients with cystic fibrosis: a pilot study.

Code: PM17360077 **Year:** 2007 **Date:** 2007 **Author:** Bruzzese E

Study design (if review, criteria of inclusion for studies)

prospective, randomized, placebo-controlled, cross-over study

Participants

19 CF children

Interventions

LGG for 6 months and then shifted to oral rehydration solution (ORS) for 6 months. In parallel 19 received ORS and then shifted to LGG.

Outcome measures

incidence of pulmonary exacerbations and of hospital admissions, forced expiratory volume (FEV1), and modifications of body weight.

Main results

Patients treated with LGG showed a reduction of pulmonary exacerbations (Median 1 vs. 2 , range 4 vs. 4, median difference 1, CI 95% 0.5-1.5; p=0.0035) and of hospital admissions (Median 0 vs. 1, range 3 vs. 2, median difference 1, CI 95% 1.0-1.5; p=0.001) compared to patients treated with ORS. LGG resulted in a greater increase in FEV1 (3.6% +/- 5.2 vs. 0.9% +/- 5; p=0.02) and body weight (1.5 kg +/- 1.8 vs. 0.7 kg +/- 1.8; p=0.02).

Authors' conclusions

LGG reduces pulmonary exacerbations and hospital admissions in patients with CF. These suggest that probiotics may delay respiratory impairment and that a relationship exists between intestinal and pulmonary inflammation.

http://dx.doi.org/10.1016/j.clnu.2007.01.004

See also

Clin Nutr. 2007 Jun;26(3):322-8. Epub 2007 Mar 13.

Keywords

Adolescent; Child; Hospitalization; Hospital care; Lactobacillus; Probiotics; Supplementation; Exacerbation; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; Oral; Immunoregulatory; pharmacological_intervention;