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Lactobacillus GG administered in oral rehydration solution to children with acute diarrhea: a multicenter European trial.

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Source

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Abstract

BACKGROUND:

The probiotic Lactobacillus GG is effective in promoting a more rapid recovery of acute, watery diarrhea in children with rotavirus enteritis. Very limited information is available, however, on the potential role of such agents in non-rotaviral diarrheal episodes. Furthermore, no evidence is available concerning the efficacy of Lactobacillus GG administered in the oral rehydration solution during oral rehydration therapy. A multicenter trial was conducted to evaluate the efficacy of Lactobacillus GG administered in the oral rehydration solution to patients with acute-onset diarrhea of all causes.

METHODS:

Children 1 month to 3 years of age with acute-onset diarrhea were enrolled in a double-blind, placebo-controlled investigation. Patients were randomly allocated to group A, receiving oral rehydration solution plus placebo, or group B, receiving the same preparation but with a live preparation of Lactobacillus GG (at least 10(10) CFU/250 ml). After rehydration in the first 4 to 6 hours, patients were offered their usual feedings plus free access to the same solution until diarrhea stopped.

RESULTS:

One hundred forty children were enrolled in group A, and 147 in group B. There were no differences at admission between the groups in age, sex, previous types of feeding, previous duration of diarrhea, use of antibiotics, weight, height, weight-height percentile, prevalence of fever, overall status, degree of dehydration, and percentage of in- versus outpatients. Duration of diarrhea after enrollment was 71.9 +/- 35.8 hours in group A versus 58.3 +/- 27.6 hours in group B (mean +/- SD; P = 0.03). In rotavirus-positive children, diarrhea lasted 76.6 +/- 41.6 hours in group A versus 56.2 +/- 16.9 hours in group B (P < 0.008). Diarrhea lasted longer than 7 days in 10.7% of group A versus 2.7% of group B patients (P < 0.01). Hospital stays were significantly shorter in group B than in group A.

CONCLUSIONS:

Administering oral rehydration solution containing Lactobacillus GG to children with acute diarrhea is safe and results in shorter duration of diarrhea, less chance of a protracted course, and faster discharge from the hospital.

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