The Efficacy and Safety of Heat-Killed Lactobacillus paracasei for Treatment of Perennial Allergic Rhinitis Induced by House-Dust Mite


PURPOSE OF THE STUDY. Live Lactobacillus paracasei 33 (LP33) may effectively improve the quality of life for patients with perennial allergic rhinitis. It has been demonstrated that heat-killed lactic acid bacteria suppress specific immunoglobulin E synthesis and stimulate interleukin-12 production in animals. The aim of this study, therefore, was to evaluate the efficacy of heat-killed LP33 in the treatment of allergic rhinitis induced by house-dust mite in human subjects.

STUDY POPULATION. A total of 90 patients older than 5 years with perennial allergic rhinitis characterized by intermittent or continuous nasal symptoms for >1 year were enrolled in a randomized, double-blind, placebo-controlled trial and assigned to 3 treatment groups.

METHODS. Patients in groups A and B received 2 capsules per day of live or heat-killed lactic acid bacteria (5 x 10⁹ colony-forming units per capsule), respectively, over a period of 30 days, whereas those in group C received placebo capsules. A modified questionnaire on pediatric rhinoconjunctivitis-related quality of life was administered to all subjects or their parents during each clinical visit.

RESULTS. The overall quality-of-life score decreased for groups A and B compared with the placebo group in terms of both frequency (9.47 ± 2.89, 6.30 ± 2.19, and -3.47 ± 1.53, respectively; P < .0001) and level of bother (5.91 ± 3.21, 6.04 ± 2.44, and -2.80 ± 1.64, respectively; P = .004) after the 30-day treatment. The efficacy of the heat-killed LP33 was not inferior to the live variant. No obvious adverse effects were reported for either active-treatment group during the study period.

CONCLUSIONS. The results suggest that heat-killed LP33 can effectively improve the overall quality of life for patients with allergic rhinitis and that it may be efficacious as an alternative treatment.

Surgical Management of Chronic Sinusitis in Children

Ramadan HH. Laryngoscope. 2004;114:2103–2109

PURPOSE OF THE STUDY. To compare the outcomes of children treated for refractory chronic sinusitis with adenoidectomy, endoscopic sinus surgery (ESS), or adenoidectomy with ESS.

STUDY POPULATION. Children, 2 to 13 years old, with sinusitis that persisted after 6 months of medical treatment (e.g., antibiotics, nasal steroids, decongestants, reflux medications). These children had surgery (adenoidectomy, ESS, or both) over the 10-year study period.

METHODS. This was a nonrandomized study in which children were followed prospectively every 3 months after the surgical approaches. Each child was evaluated preoperatively for allergy, immunodeficiency, and cystic fibrosis and had a sinus computed tomography (CT) scan to assess disease severity. Parents filled out a questionnaire to assess improvement every 6 months for 1 year. Improvement based on questionnaire reports and need for more surgery were the principal outcome measures.

RESULTS. A total of 222 children had surgery for sinusitis during the study period (11% of children referred for evaluation of sinusitis), and 183 had adequate follow-up. The 3 surgical groups were similar with regard to gender, asthma, allergy, smoke exposure, and day care attendance. The children who had adenoidectomy alone were younger and had less severe sinus disease on CT scan than those in the other groups. Children who had adenoidectomy/ESS showed the greatest rate of improvement (87%) and lowest need for more surgery.
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