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Original Article

Identification of Lactobacilli from Fecal Flora of Some Iranian Infants

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Abstract:

**Objective:** During the past 20 years identification of lactobacilli isolated from normal flora has received great interest due to their health promoting effects. This study has aimed at characterizing the lactobacillus strains isolated from the fecal flora of Iranian infants based on phenotypic oriented methods. Moreover, the diversity of identified species among tested infants has been looked into.

**Methods:** Thirty two strains of lactobacilli were included in this study. The given strains were previously isolated from the fecal samples of 6 infants between 1-19 months of age. They are examined through 14 carbohydrate fermentation tests, growth ability at different temperatures and different concentrations of NaCl. Cell and colony morphology were assessed as well.

**Findings:** The examined strains were identified as *L. acidophilus* (12 strains), *L. plantarum* (9 strains), *L. rhamnosus* (7 strains), *L. paracasei* (3 strains) and *L. fermentum* (1 strain); 2 strains remained unidentified. Accordingly *L. acidophilus* was the most predominant species among tested samples.

**Conclusion:** Some biochemical differences were obtained among the strains of *L. acidophilus* group and some morphological peculiarities were observed among the strains of *L. paracasei* and *L. rhamnosus* in comparison to the typical strains of *L. casei* group. These differences revealed the necessity of application of complementary molecular methods for clear identification of examined *Lactobacillus* strains.

Keywords:

Lactobacilli . Fecal flora . Infants . Intestinal microflora . Probiotics

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