Frequency of Lactobacillus Strains in Foods of East Azerbaijan Cities, Iran

Abstract

Background and objectives: Probiotics are nonpathogenic and beneficial micro-organisms, usually made from strains of the genera Lactobacillus and Bifidobacterium. The probiotics are known as dietary supplements with beneficial effects on consumer health. In some countries, sufficient quantities and specific compound of Lactobacillus and Bifidobacterium are used for therapeutic purposes and food industry. The aim of this study was to evaluate the frequency of Lactobacillus and Lactococcus strains in food stuffs cities in Eastern Azerbaijan, Iran.

Material and Methods: In this cross-sectional study 100 Samples were obtained from dairy products, yogurt, grains, cheese, saffron flower, fresh pinto beans, red beans, and fresh green beans. All samples were incubated in MRS Agar cultures at 42, 37, and 25°C for two days, and then bacteria were isolated, concentrated, and lyophilized. Finally the differential recognition was performed in deferential cultures.

Results: Of 100 food samples, the following Lactobacillus and Lactococcus are isolated. Lactobacillus delbrueki, L. bulgaris, L. salivarius, L. casei are 10, 10, 8, 5 and 3 cases respectively. Lactococcus thermo philus the most frequent Lactococcus where isolated in this study.

Conclusion: Based on the results of this study, many kinds of probiotics especially Lactobacillus strains are presented in foods. It is recommended that these probiotics be isolated and proliferated and used in industry and also for therapeutic purposes.

Key words: probiotics, Lactobacillus, food.