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Comparative analysis of bacterial enumerations in fecal samples of patients with Familial Mediterranean fever disease by culture-based and phylochip techniques

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Background: Cultural analysis is widely applied method for the bacterial identification and differentiation in majority of Armenian clinical laboratories. It is commonly used for the quantitative assessment of gut *E. coli*, *Lactobacillus spp.* and *Bifidobacterium spp.* in gut microbiota of patients with familial Mediterranean fever (FMF) disease during the probiotic-therapies.

Main goal of current investigation was the comparison of results on numbers of isolates of *Escherichia*, *Lactobacillus spp.* and *Bifidobacterium spp.* in gut microbiota of Armenian FMF patients by the clinical culture-based and phylochip techniques.

Methods: For the assessment of bacterial numbers the clinical cultivation and phylochip™ analysis was used.

Results and Conclusion: The results of investigations revealed compliance between cultural and phylochip analysis for the identification of bacterial counts for *E. coli* and *Lactobacillus spp.* Despite of a variety of not cultivated lactobacilli, total of these isolates in gut microbiota of investigated patients was comparable with the totals of the isolates described in the course of the cultural analysis. No relationship found between the culture and phylochip results for bifidobacteria.

Biography

Astghik Z Pepoyan has completed her PhD in 1990 and DSc in 2002 at the Institute of Biochemistry at NAS RA. She is the head of the Food Safety and Biotechnology department at Armenian National Agrarian University. She is also President of the International Association for Human and Animals Health Improvement, and the scientific consultant at Neo Lab Diagnostic Center, Yerevan, Armenia. She has about 200 publications in reputed journals and serving as an editorial board member of repute.

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