

## عنوان مقاله:

Survey on Heterotrophic Bacterial Contamination in Bottled Mineral Water by Culture Method

محل انتشار:

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## خلاصه مقاله:

Background and Aim: This project focuses on the level of heterotrophic baceria in bottled mineral water which could be a health concern for the elderly, infants, pregnant women and immuno-compromised patients. Materials and Methods: Different brands of bottled water samples were selected randomly and evaluated for their bacteriological quality, using different specific culture media and biochemical tests. Water samples were analyzed within 24 hours of their purchase/collection. Samples were filtered with 0.45 micron and filters were plated in different media. Then media were incubated at 37?C for 24-48 hours. Results: Morphological study and biochemical tests revealed a number of bacteria in different brands of bottled water. Heterotrophic bacteria(Gram positive cocci, Spore forming gram positive bacilli, non spore forming gram positive bacilli, gram negative bacilli, and gram negative coccobacilli; Pseudomonas and Stenotrophomonas) counted in 70% of bottled water samples. There were no cases of fecal contamination or the presence of E.coli.Conclusions: Bottled water is not sterile and contains trace amounts of bacteria naturally present or introduced during processing. Testing drinking water for all possible pathogens is complex, time-consuming, and expensive. If only total coliform bacteria are detected in drinking water, the source is probably environmental. Since the significance of non-pathogenic heterotrophic bacteria in relation to health and diseases is not understood, there is an urgent need to establish a maximum limit for the heterotrophic count in the bottled mineral water. Growth conditions play a critical role in the recovery of heterotrophic bacteria in bottled drinking .water

## كلمات كليدى:

Bottled mineral water, Bacterial contamination, Heterotrophic bacteria

لینک ثابت مقاله در پایگاه سیویلیکا:





