30

Prevalence of listeria organisms in raw milk and some dairy products

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The objective of this study was to determine the prevalence of Listeria organisms in raw milk and some dairy products (cream, ice cream and milk powder) marketed in Elbehera province, Egypt. A total of 100 random samples from raw milk and three dairy products (25 samples from each type) were collected from different groceries and supermarket in Elbehera province for isolation and identification of listeria monocytogenes. Results revealed that growth of Listeria species was detected in 10 (10%) of total samples as 3 (12%) isolates from raw milk, 4 (16%) isolates from ice cream samples and 3 (12%) isolates from cream samples. Listeria species failed to be detected in milk powder samples. Also, the frequency distribution of listeria species in raw milk were listeria monocytogenes 1(33.33%), Listeria innocua 1(33.33%) and Listeria grayi 1(33.33%); in ice cream samples were listeria monocytogenes 2(50%), Listeria innocua 1(25%) and Listeria grayi 1(25%) and in cream samples were listeria monocytogenes 1(33.33%), Listeria innocua 1(33.33%) and Listeria grayi 1(33.33%), respectively. PCR method is rapid method for detection 16s RNA gene of listeria monocytogens isolated from raw milk samples at (553 bp). The findings of this study suggest that Listeria contaminates some dairy products such as cream and ice cream and Listeria infection are not a potential risk, but it is strongly recommended that these products are monitored carefully.

Key words: milk, dairy products, Listeria monocytogens, 16s RNA