Detection of Acinetobacter species in milk and some dairy products

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Abstract:

Two hundred and forty random samples of milk and some dairy products; Domiati, Kareish cheese and cream were collected from Assiut city, Egypt. The collected samples were examined for the incidence of Acinetobacter species using Leeds Acinetobacter selective medium. The obtained results revealed that Acinetobacter species was isolated from 15% of the raw milk samples, 3.3% of the Domiati cheese samples, 13.3% of the Kareish cheese samples and 13.3% of the cream samples, while couldn't be detected in the pasteurized milk samples. The isolated species were Acinetobacter baumannii, Acinetobacter haemolyticus, Acinetobacter calcoaceticus and Acinetobacter junii. Acinetobacter baumannii was detected using blaOXA-23-like, blaOXA-51-like, and class 1 integrase genes. The characterization of the Acinetobacter species for the production of lipolytic enzyme was studied. Out of the 27 isolated Acinetobacter species, 23 possessed lipolytic activity. The public health hazard of this microorganism in milk and some dairy products was discussed.

Keywords:

Acinetobacter, milk, dairy products, lipolytic activity

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