

Abstract

Introduction: One of the main concerns of today's societies is the spread of diseases caused by the consumption of contaminated food. Every year, huge amounts of money are spent on the treatment of these diseases. Confectionary cream are among the foods that have high levels of contamination due to the nutrient-rich ingredients that are used to grow microorganisms and their conditions of production and maintenance.

Purpose: The purpose of this study was to determine the microbial contamination of creamy sweets in Zabol.

Materials and Methods: In this research, 102 samples of cream sweets were randomly taken from Zabol Shopping Centers, were sterilized to the Veterinary Faculty's Food lab. The probable bacterial contamination rate and antibiotic resistance pattern were determined for *E. coli* and *Bacillus cereus* bacteria. Data were analyzed by SPSS statistical software.

Results: The results of this study showed that the contamination of creamy sweets with *Escherichia coli* and *Bacillus cereus* was 26.5 and 71.5%, respectively. In terms of antibiotic susceptibility, *Escherichia coli* and *Bacillus cereus* bacteria were equally resistant to ampicillin and penicillin (100%) antibiotics. The highest susceptibility to gentamicin antibiotic was for *Escherichia coli* (70.4%) and for *Bacillus cereus* (90.4%). The sensitivity of *Escherichia coli* and *Bacillus cereus* bacteria to the antibiotics was statistically significant ($p < 0.001$).

Conclusion: According to the findings of this study, the amount of infected cream is high in *Bacillus cereus* and *Escherichia coli*. Most likely, the reasons are related to the type of weather conditions (high dust and tropical) in the Sistan region and the excessive presence of cream sweets in the confectionery. Compliance with health and promotion of staff awareness, continuous health check through the relevant organs is recommended.

Keywords: confectionary cream -*Escherichia coli*-*Bacillus cereus*-Antibiogram.



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**prevalence of contamination with *Bacillus cereus*
and *E-coli* in the confectionary creams produced in
the city Zabol and Determine antibiotic resistance
pattern.**

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