Microbial Contamination of Pastry Cream Supplied in Gorgan

Abstract

Background and Objective: Cream pastry, because of their ingredients, making process and preserving conditions are susceptible to many types of microbes. This study was conducted to determine the level of contamination of pastry cream in Gorgan.

Material and Methods: The randomly selected samples (N = 450) were tested according to national standards for microbial tests and then the data was analyzed.

Results: The level of contaminations for Enterobacteriaceae and Staphylococcus aureus was 56% and 43.3%, respectively. The highest contamination occurred in summer with Enterobacteriaceae (N= 113) and the lowest in spring with Staphylococcus aureus (N= 40). Also microbial contamination in different types of cream pastries showed the maximum level in cream puff (90%) and the minimum level in roll pastry (30.6%).

Conclusion: There is a significant difference in infection rate between different samples. The infection rate in this study is more than the prevalence of past studies.

Keywords: Cream Pastry, Enterobacteriaceae, Staphylococcus aureus, Gorgan