Microbial Contamination of Pastry Cream: Evidence From Hamedan, Iran

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Background & Aims of the Study: Given the importance of microbial contamination in creating food-borne diseases, this study was conducted to assess level of microbial contamination of pastry creams in Hamedan, Iran.

Materials and Methods: Totally, 80 samples were randomly collected from the confectioneries and analyzed for microbial contamination according to Iranian national standard microbial tests.

Results: Data indicated that 49 (61.2%) samples were contaminated, mostly comprised of Coliforms (92.5%). Moreover, the infection was seen to be higher in jelly roll compared to puff pastry. Yeast contamination was about 82.5 percent, which could accelerate the decay of such products. However, yeast contamination of puff pastries was higher than jelly roll. The microbial contamination with Staphylococcus aureus, total viable count and molds were 57.5%, 35% and 37.5%, respectively.

Conclusion: Nevertheless, Salmonella, Escherichia coli and Listeria monocytogenes were not found in any of the samples. Abundance of microbial contamination in the puff pastry samples might put consumer’s health at risk.