

Microbiological Infection of Hamburgers Consumed in Arak City, Iran

Rezaei, M. (MSc)

MSc of Food Safety and Hygiene,
School of Public Health, Tehran
University of Medical Sciences, Tehran,
Iran

Shariatifar, N. (PhD)

Assistant Professor of Food Safety and
Hygiene, School of Public Health,
Tehran University of Medical Sciences,
Tehran, Iran

Parviz, M. (DVM)

Doctor Veterinary Medicine, Department
of Animal Science, Faculty of
Agriculture, Islamic Saveh Azad
University, Saveh, Iran

Behzadi, AA. (MSc)

MSc of Food safety and Hygiene,
school of public Health, Yazd
University of Medical Sciences, Yazd,
Iran

Corresponding Author: Shariatifar,
N.

Email: Nshariatifar@ut.ac.ir

Received: 6 Aug 2013

Revised: 22 Jun 2014 **Accepted:** 23
Jun 2014

Abstract

Background and Objective: The presence of microorganisms in food is a paramount importance to public health. This study was carried out to measure the rate of microbial contamination of the hamburgers consumed in Arak.

Material and Methods: The samples of frozen hamburgers (n= 100) were collected from the selling centers in Arak. The city was divided into five areas and 20 samples were collected from each area. The experiments of counting staphylococcus aureus with Iranian National No 6806-6, the total counting of bacteria No. 5272 and the counting mould and yeast with No 997 were carried out.

Results: the samples polluted by staphylococcus aureus were 26.6%. , 61.3% of the samples were higher than the required standard and 65% of the samples were higher than the required standard in Iran. The rate of staphylococcus aureus in the samples was 6×10^3 CFU/gr on average and the total counting of the bacteria was 5×10^6 CFU/gr on average, and the average rate of being polluted by fungi was 2×10^4 CFU/gr (820-36300) showing the high microbial contamination in this product. No significant difference was found at the level of different brands.

Conclusion: The results showed that 26.6% of the samples were contaminated with S. aureus, 61.3% with total microbial and 65% with fungal infection.

Keywords: Meat Products, Staphylococcus, Fungi, Food Safety