



University of Zabol
Graduate school
Faculty of Veterinary Medicine
Department of Nutrition

The Thesis Submitted for the Degree of Master of Science
(In the field of Hygiene of Food)

Title:

**Investigation of the contamination of butchery equipment and
meat packaging in Sistan region with Staphylococcus aureus**

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Abstract

Meat is the richest source of protein for human nutrition and is also one of the most perishable foods .One of the most important ways to transmit pathogens to meat is the use of unsanitary knives, forks, knives and wooden boards, and many people think that just washing this equipment with water and detergent will make them hygienic. , Inadvertently contaminate the meat .

The aim of this study was to investigate the contamination of butchery tools with *Staphylococcus aureus* .In this study, the prevalence of *Staphylococcus aureus* infection by sampling location (knife / refrigerator / meat board / scales / meat hanger hook / butcher clothes / butcher palm) It was calculated in the butchers of Sistan region and also 95% confidence for the prevalence was calculated .

The prevalence of *Staphylococcus aureus* infection was compared among the samples using Cochran Q test .Mc Nemar and Bonferroni tests were used to compare the samples .

SPSS software version 25 was used for statistical analysis. In the present study, out of 140 samples taken from 15 butchers and 1 meat package in Sistan region, 66 samples were infected with *Staphylococcus aureus*, the most contamination of which was related to the palm. With a rate of 75% infection and the lowest rate of infection with *Staphylococcus aureus* was related to refrigerator with 5%.

To prevent diseases of biological origin and to prevent the transmission of contamination from animal meat to humans, frequent washing of hands with soap and water, washing of knives and knives and meat grinders and all tools that have come into contact with contaminated meat. It is also necessary to wear work clothes and wash them regularly with detergents and disinfectants and clean the place, wash floors, walls and windows and work surfaces with detergents and disinfectants .

Keywords: Meat, Poisoning, Staphylococcal infection, Sistan, Iran.