



University of Zabol  
Graduate Management  
Faculty of Veterinary Medicine  
Department of Food hygiene and quality control

**The Thesis Submitted for the degree of M.Sc  
(in the field of Food Hygiene and quality control Science)**

**Investigation of Salmonella infection in chicken's heart in Zabol**

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## **Abstract**

The Enterobacteriaceae family is the largest heterogeneous collection of gram-negative bacilli, of which about 40 genera and 150 species have been identified so far. One of the most common human and animal diseases worldwide is salmonellosis, which causes food poisoning, gastroenteritis, intestinal fever and bacteremia in humans. One of the most important genera of this family is *Salmonella*, which can be colonized in all animals, including poultry, reptiles, domestic and wild animals, rodents, birds and humans. Most infections are caused by the consumption of contaminated food and by the direct spread of feces-mouth. Poultry meat and eggs and their products are considered as one of the main sources of *Salmonella* infection in human food poisoning. Chicken heart is a good source of protein and iron and is rich in folic acid; The aim of this study was to evaluate the level of *Salmonella* infection in the heart organs of chickens available in stores in Zabol city. In this study, 140 samples were taken from the hearts of packaged chickens (70 samples) and stuffed chickens (70 samples) in Zabol city and were transferred to the Food Hygiene Laboratory of the Veterinary School. After sterilization of the equipment in the oven and autoclave, sampling was performed within one month. Samples were cultured in cysteine, peptone water, SS agar and TSI media. Out of 45 samples of *Salmonella* bacteria, 18 cases (25.7%) were related to daily slaughter samples (industrial) and 27 cases (38.6%) were related to traditional slaughter samples. Due to the prevalence, the necessary measures should be taken in the field of health control in slaughterhouses.

**Keywords:** *Salmonella*, Chicken Heart, Zabol