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Title:

The Prevalence of Salmonella *Typhimurium* and Salmonella *Enteritidis* by (PCR) molecular method in broiler poultry flocks of Khash city

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2021

Abstract

Salmonella is one of the main health and economic problems in industrialized countries and *salmonellosis* is one of the most common diseases in the world. Poultry can play an important role in the spread of *salmonellosis* in humans.The aim of this study was to investigate the prevalence of *Salmonella* Serotypes *Typhimurium* and *Enteritidis* by molecular method (PCR) in broiler flocks in Khash city. 100chicken, 1 to 14 day old chickens were collected from 10 broiler farm in Khash city. Chickens collected under sterile conditions were transferred to the laboratory. Chicken livers and intestines were sterile sampled and cultured in nutrient agar culture. A total of 4 samples out of 100 cultured liver and intestine samples were positive. After biochemical analysis of isolated bacteria, DNA extraction was performed from the isolates. Then, polymerase chain reaction was performed for *invA, sdf* and *STM* genes. The results showed that the *invA* gene (*Salmonella genus*) with 100% frequency had the highest statistical percentage and then the *sdf* gene (*Salmonella enteritidis*) with 50% and *STM* gene (*Salmonella typhimurium*) with 0% had the lowest infection rate. In the present study, it was found that the prevalence of *Salmonella enteritidis* serotypes in broiler chickens 1-14 days old in Khash city is high.

key words: salmonella, enteritidis, typhimurium, PCR, kash, chicken.