

Study of Drug Resistance in Salmonella spp. Isolated from Native Eggs of Iran's Southern Region

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Abstract

Salmonellas are short bacteria, gram negative, some of them have caps, facultative aerobic and anaerobic have high resistance against physical and chemical factors. Salmonella causes bacillary white diarrhea in Avian. Its transference in Avian is vertical and horizontal. In human, it causes food poisoning too. The egg is the most important source of salmonella. Native eggs have been collected and transferred to the lab in order to study their contamination. These eggs were collected from areas around Shiraz (Iran). In this research the pattern of drug resistance of bacteria was studied. The egg shell is purified with Ethanol 70%, and then the contents of Fifty eggs are mixed in a dish and incubated with soap in Selenite-f. After 24 hour incubation at 37°C the Selenite-f sample was transferred to salmonella spp and after incubation at 37°C was analyzed in terms of suspected colonies to Salmonella. The suspected colonies were inoculated into lysine decarboxylase broth and TSI agar environment. The bacteria that had reactions were related to salmonella, and were analyzed by the PCR test, with special primer for salmonella spp, such as *S. enteritidis* and *S. typhimurium*. The results of this study indicated five samples of mixed eggs (at least 0/33% of eggs) were contaminated with salmonella of serotype *S. enteritidis*. Among the separated Salmonellas 85.9 % were resistant to Ampicillin, 14.5% to Tetracycline, and 42.9% to Kanamycin, but all of them were sensitive to Norfloxacin in this antibiotic resistance test. Excessive use of antibiotics and also having no information on sensitivity and bacterial resistance to antibiotics can make the antibiotic resistances more complex.