

Isolation and Determination of Antibiotic Resistance Patterns in Non-typhoid Salmonella

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Background & Objectives: Salmonellosis is one of the most food borne diseases in both developed and developing countries. In recent years has been observed, an increase in antimicrobial drug resistance, among non typhoid salmonella spp. The aim of this study was to isolate and determine antibiotic resistance pattern in non -typhoid Salmonella spp.

Methods: This descriptive study was done on 100 samples of chickens collected from 196 retail markets and were examined for the presence of Salmonella using standard bacteriological procedures and serotyping kit. Antimicrobial susceptibility testing was performed by disk diffusion Methods according to National Committee for Clinical Laboratory Standards (NCCLS). The data were analyzed by using SPSS software version18.

Results: Forty –tree percent of samples were contaminated with salmonella infantis and 57% didn't have any contamination. The stereotyping results showed that 34 of 44 isolates of Salmonella belonged to salmonella infantis (79.5 %), one strain (2.3%) of group C and 8 strain (18.2%) to group D. Drug susceptibility assay revealed that Cefotaxime and Ciprofloxacin are sensitive antibiotics in Salmonella has been studied, but all these strains were fully resistance to Nalidixic acid, Tetracyclin and Sterptomycin. The most resistance pattern (34.1%) related to six antibiotics pattern, and 6.8% of strains were resistance at least three antibiotics.

Conclusion: High levels of resistance to antibiotics that are used jointly to human and poultry can be a warning to our community health and be used as an important strategy to improve infection control.

Keywords: Salmonella; Serotype; Antibiotic Resistance