

Genotyping of *Salmonella enterica* Collected from Poultry Farms Located in Riyadh, KSA by Multiplex-PCR

Authors : Moussa I. Mohamed, Turki, K. A. Al-Faraj, Abdullah A. Al-Arfaj, Ashgan M. Hessain

Abstract : The objective of the present study is to detect the incidences of *Salmonella enterica* from different poultry farms located in Egypt on molecular basis. During the summer of 2012, a total of 1800 cloacal swabs were collected from poultry farms located I Cairo, Egypt to be subjected for isolation of *Salmonella enteric*. Moreover, a total of 300 samples of poultry and poultry products were collected from different retail establishment markets in Cairo, Egypt including, 150 local whole frozen chickens, 50 imported whole frozen chickens, 100 local chicken cut samples. The highest rate of isolation 8% was obtained from imported frozen chickens and local chicken cuts, followed by local frozen chickens 6.66% and finally rectal swabs from apparently health chickens 6.4 %. *Salmonella Typhimurium* and *Salmonella Enteritidis* were most frequent among the total *Salmonella* isolates. Multiplex-PCR for the rapid detection of *Salmonella Typhimurium* and *Salmonella Enteritidis* from field samples especially after pre-enrichment on Rappaport-Vassiliadis (RV) selective broth (PCR-RV), revealed the same positive samples. Therefore PCR-RV technique is rapid, time saving and applicable to detect *Salmonella* serovars directly from chicken samples. Moreover, detecting *Salmonella Typhimurium* and *Salmonella Enteritidis* by this assay was carried out within 2 days opposed to 5-6 d by the bacteriological and serological methods.

Keywords : *Salmonella enterica*, *Salmonella typhimurium*, *Salmonella enteritidis* enrichment, multiplex-PCR

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