



CAIRO UNIVERSITY

Cairo university
Faculty of Veterinary Medicine



Phenotypic and Genotypic Characterization of *Salmonella* Spp. isolated From broiler chickens and Human

A Thesis Presented by

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For the Degree of Master in Veterinary Medical Sciences
(Bacteriology, Immunology and Mycology)

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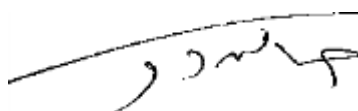
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ABSTRACT

The aim of this present study to survey the antimicrobial resistance, ESBL and virulence genes among *Salmonella* serovars isolated from broiler chickens and Human. 300 broiler chickens and 60 stool human samples were investigated for *Salmonella* by cultural, biochemical and serotyping, 44 isolates were positive for *Salmonella* with the most predominant serotypes are *S. Enteritidis* and *S. Typhimurium* in all isolates from broilers chickens and Human. Broilers *Salmonella* isolates showed high resistance to Imipenem (83.3%) followed by Ceftriaxone (73.3%), On contrast showed high sensitive to Cephalexin (73.3%). But in human isolates showed high resistance to Ampicillin-Sulbactam (21.4%), On contrast showed high sensitive to Ceftazidime, Amikacin and Trimethoprim-Sulfamethoxazole (100 %) for each . By using PCR test for detection of four virulence genes (*invA* , *adrA* , *ompA* and *csgD*) and nine resistance genes (*int1*, *int2*, *int3*, *Bla_{TEM}*, *Bla_{CTX}*, *Bla_{OXA}*, *Mox*, *gyrA* and *gyrS*), detected the presence of *invA* virulence and *Bla_{TEM}* resistance gene in all serovars isolated from broiler chickens and human. Finally, in our study the results of genotypic and phenotypic analysis, found close relation between human and broiler chickens *Salmonella* strains.

Keywords :

Broilers - ESBLs – Human – *Salmonella* Serovars – Virulence genes

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