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ARABIC SUMMARY	

Summary

-A field screening was tried to study the incidence and prevalence of *A.hydrophila* infection in some governorates of Upper Egypt including Assuit, EL-Menia and Sohag. Out of 710 samples collected from different poultry farms ,133 isolates were identified by bacteriological examination at an incidence rate of 18.73%.These samples included 300 chickens,200 ducks ,150 turkeys, as well as 60 water samples, *A.hydrophila* was recovered as 45 isolates and percentage of (15%), 45(22.5%), 30 (20%), and 13 (21.6%) respectively. This isolation was achieved from liver , heart blood and cloacal swabs. The higher percentage of isolation was noticed during winter months.

-Recovery of *A.hydrophila* , from poultry farms at the area of Upper- Egypt is considered the first attempt for isolation of this organism.

-In-vitro sensitivity testing of thirty *A.hydrophila* isolates against nineteen different antibacterial agents was carried out and. The results displayed that *A.hydrophila* isolates were completely susceptible to gentamycin(100%),and they were susceptible to lincospectin, ciprofloxacin, nalidixic acid, kitassamycin, oxalinic acid, chloramphenicol, florfenicol, kanamycin and enrofloxacin, at percentage of (83.33), (73.33) , (73.33) , (70%), (66.66%), (63.33%), (60%), (60%) and (53.53%). respectively. The isolates were moderately sensitive to neomycin (80%).

On the other hand *A.hydrophila* isolates were completely resistant to ampicillin (100%),and they were resistant to amoxyicillin(90%) ,erythromycin(90%), tetracycline(86.66%), ceftifour(60%) and oxytetracyclin(60%) .

-The pathogenicity of *A.hydrophila* for 3-day- old chicks and 4-days ducklings was carried out. Chicks and ducklings were inoculated with a chicken isolate and a duck isolate, respectively through the yolk sac, subcutaneous and oral routes .The results indicated that young chicks and ducklings ,infected via the y/s or s/c routes were highly susceptible to *A.hydrophila* infection whereas chicks and ducklings infected by the oral route were less susceptible .experimental infections resulted in acute deaths and mortalities within 1-3 days in young birds which ranged from 33%(oral route), 80%(y/s route),and 100% (s/c route)in chicks and 30% (oral route), 70% (y/s route),and 80% (s/c route) in ducklings .Signs and post-mortem lesions of experimentally inoculated birds were recorded and discussed ,and the microorganism was reisolated from heart blood, liver ,and yolk sac of dead birds. Studies on the cross-pathogenicity of *A.hydrophila* in chicks aged 3-days using a duck isolate and in ducklings 4-day-old using a chicken isolate were investigated .The experiment indicated that chicks and ducklings were highly susceptible to exposure via s/c and y/s routs .This experiment pointed out that cross-pathogenicity of *A.hydrophila* occurs among chicks and ducklings regardless its origin .

-Survivors of all experimentally infected groups shed the organism for up to 3 weeks post-infection.

-On a trial for treatment three groups of an experimentally orally infected 5-day old chicks and was studied using : Ciprofloxacin, Enrofloxacin and Neomycin.

Ciprofloxacin recorded the best results in removal of the clinical signs and intestinal carriage of *A.hydrophila* as compared with the other two drugs. The excretion of the microorganisms after treatment with ciprofloxacin disappeared in the day 6 of the experiment till the end without mortalities.

-In treatment attempt of an experimentally orally infected ducklings aged 5-days using three antibacterial agents, gentamycin and lincospectin were the most effective drugs in treating *A.hydrophila* infection as compared with chloramphenicol.

- plasmid profile of *A.hydrophila* isolates showed that the presence of plasmid of 10 kb in two isolates and of 23 kb in other two isolates out of 12 tested isolates while the other isolates were plasmid negative.

The results obtained in the present work may throw some light on the significance of *A.hydrophila* as poultry pathogen that can affect the economic profitability as well as public health significance as a zoonotic agent which should not be ignored.