

Suez Canal University
Faculty of Veterinary Medicine
Dept. of Avian and Rabbit Medicine



Study on some bacterial duck diseases in Damietta Governorate

Thesis Presented By

Mohamed Samy Al-Gaiar

(B.V.Sc. 2002) - Cairo University

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Supervision

Prof. Dr. Mohsen Mohamed Zaki El Dimerdash

Professor of Avian and Rabbit Med.

Faculty of Veterinary Medicine

Suez Canal University, Ismailia

Prof. Dr. Dalia Mansour Hamed

Professor of Avian and Rabbit Med.

Faculty of Veterinary Medicine

Suez Canal University, Ismailia

Prof. Dr. Mohamed Kamal Moursi

Chief Research of poultry Diseases and

Head of National Laboratory for

Veterinary Quality Control on Poultry

Production, Ismailia branch

Department of Avian and Rabbit Medicine

**Faculty of Veterinary Medicine,
Suez Canal University
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Thesis under the supervision of:

**Prof. Dr. Mohsen Mohamed Zaki El Dimerdash
Professor of Avian and Rabbit Med.
Faculty of Veterinary Medicine
Suez Canal University, Ismailia**

**Prof. Dr. Dalia Mansour Hamed
Professor of Avian and Rabbit Med.
Faculty of Veterinary Medicine
Suez Canal University, Ismailia**

**Prof. Dr. Mohamed Kamal Moursi
Chief Research of poultry Diseases and Head of National
Laboratory for Veterinary Quality Control on Poultry
Production, Ismailia branch**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿ قالوا سبحانك لا علم لنا الا ما علمتنا

﴿ إنك انت العليم الحكيم

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Author	Mohamed Samy Al-Gaiar
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English Abstract

Fifty -Eight, duck flocks of different ages, rearing system and breeds (Pekin, *Muscovy* and *Mallard*), suffered from high morbidity and increased mortality, were examined from 2013 to 2015 in different localities of Damietta Governorate. Clinical signs and post mortem examination were carried out. 213 samples (169 from duck farms and 44 from the backyard) were collected from internal organs , bone marrow, synovial fluids of arthritic joints and hydro-pericardial fluids from diseased and freshly dead ducks from positive bacterial isolation and subjected to isolation and identification of bacterial pathogens. Bacterial isolates were (81%, 76.9%) from farms and backyard respectively. The most frequently isolated bacterial pathogens were *E.coli* , *Salmonella spp*, *Proteuse spp*, *Enterococcus spp*, *Pseudomonas spp* and *Staphylococcus aureus* with incidence of (88.4% , 80%), (11.5% ,10%); (50%,40%); (26.9%,20%); (15.3%,0%) and (7.6% ,0%) from duck farms and backyards respectively . *Salmonella* serotyping were *Salmonella Kentucky* (66%), *Salmonella Santiaago* and *Salmonella Typhimurium* (16.6). Serological serotyping of some isolated *E.coli*. belonged to (O1, O127 and O 143). Antibiotic sensitivity testing for *Salmonella spp* showed susceptibility to

Enrofloxacin, Flumequine, Oxytetracyclin, Amoxicillin, Chloramphenicol, Ciprofloxacin, Neomycin, Ampicillin, Doxycyclin hydrochloride and resistance to gentamicin. While *Enterococcus faecalis* strains were found to be resistance to different antibiotics and susceptible only to Ampicilin. Pathogenicity testing of isolated *Salmonella typhimurium* and *Enterococcus faecalis* were carried out on Pekin ducks, showed variable degrees of clinical signs and postmortem lesion depends on pathogen challenged and route of inoculation.

Key Words	Bacterial diseases, salmonella , Enterococcus, Duck diseases, serotyping, antimicrobial sensitivity.
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List of Abbreviations

Abbreviation	Mean
ABPC	Ampicillin
BS	Bismuth Sulfite
BA	Blood agar
BGA	Brilliant green agar
CTX	Cefotaxime
CP	Chloramphenicol
CPFX	Ciprofloxacin
CFU	Colony Forming Unite
ES	Crude extrac
C	Degree Cellius
d	Day
DCA	Desoxycholate citrate agar
DAEC	Diffuse adherent Escherichia coli
EAggEC	Enteraggregative Escherichia coli
EHEC	Enterohemorrhgic Escherichia coli
EIEC	Enteroinvasive Escherichia coli
EPEC	Enteropathogenic Escherichia coli
ETEC	Enterotoxigenic Escherichia .coli
EMB	Eosin Methylene Blue
EM	Erythromycin
E.coli	Escherichia coli
FAO	Food and Agricultural Organization
FHN	Femoral Head necrosis
GN	Gram Negative
GP	Gram Positive
HE	Hektoen Enteric agar
hr	hour
H2O2	Hydrogen peroxide
KM	kanamycin
KIA	Kligler Iron agar
LAP	Leucine pyrrolidony

LCM	Lincomycin
MSA	Mannitol Salt agar
MR	Methyl Red
ml	Millilitre
NO	Number
OIE	Office International Des Epizooties
OTC	Oxytetracyclin
PBS	Phosphat buffered salin
PM	Post mortem
PL-B	Polymyxin
PI	Post inoculation
PYR	Pyrrolidonyl beta naphthylamide
RV	Rappaport Vassiliadis
St	Salmonella typhimurium
SS	Salmonella. Shigella agar
NaCl	Sodium chloride
ST	Trimethoprime- sulfamethoxazole
TSI	Triple Sugar Iron agar
TSA	Trptic soya agar
UPEC	Uropathogenic Escherichia coli
VCM	Vancomycin
V-P	Voges proskauer
WBAT	Whole Blood Agglutination Test
WK	Week
XLD	Xylose lysine deoxycholate agar
XLT4	Xylose lysine tergitol agar
YSI	Yolk Sac Infection
Y	Yellow (TSI)
+	positive
-	Negative
/	per
%	Percentage