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Effect of Bacterial Proteolytic enzymes on Virulence and Pathogenicity of Avian Influenza Virus

A Thesis Presented By
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For PhD Degree in Veterinary Medical Sciences, Microbiology
(Bacteriology, Immunology and Mycology)

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Abstract

Two thousands cloacal swabs were collected from 100 poultry farms showing respiratory and diarrheic sings. All samples were examined bacteriologically for isolation of *E.coli* & *Salmonella*. The results revealed detection of *Salmonella* in 31 farms out of 100 examined farms with percentage 31%. Isolation of *E.coli* was carried out and the results revealed isolation of *E.coli* from 67 farms with percentage 67% of examined 100 poultry farms. Detection of the proteolytic enzymes produced by bacterial isolates was done using Protease Agar Casein Assay. All collected samples were examined for detection of Avian Influenza viruses using RRT-PCR. HPAI (H5N1) virus was detected in 10 farms while LPAI (H9N2) was detected in 31 farms out of 100 examined farms. Effect of co-infection with HPAI & LPAI and proteolytic bacteria (*Salmonella Enteritidis* and *E.coli* O158) was carried out in SPF chicken. Morbidity and mortality were recorded as well as re-isolation and virus shedding were done

Dedication

To my

Father

Mother

Brothers (Ahmed and Mustafa)

Sister (Azza)

My Friends

*I hope that they will be happy,
with my deep thanks for their support
during the work.*

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