**Investigation of selected bacterial diseases in clinically sick and dead commercial poultry brought to Upazilla Veterinary Hospital, Hathazari and Chittagong Veterinary and Animal Sciences University**



**SUBMITTED BY**

**Joya Chowdhury**

**Intern ID: A-01**

**Roll No. : 12/01**

**Registration no. : 00713**

**Session: 2011 -2012**

**Report Presented in Partial Fulfillment for the**

**Degree of Doctor of Veterinary Medicine**

**Faculty of Veterinary Medicine**

**CHITTAGONG VETERINARY AND ANIMAL SCIENCES UNIVERSITY**

**Khulshi, Chittagong-4225**

**Investigation of selected bacterial diseases in clinically sick and dead commercial poultry brought to Upazilla Veterinary Hospital, Hathazari and Chittagong Veterinary and Animal Sciences University**



**Approved by-**

…………………………………………………………….

**Professor Md. Ahasanul Hoque, PhD**

Dept. of Medicine and Surgery

Faculty of Veterinary Medicine

Chittagong Veterinary and Animal Sciences University

**November, 2017**

TABLE OF CONTENTS

|  |  |
| --- | --- |
| Contents | Page No |

LIST OF TABLES……………………………………………………..………….i

LIST OF FIGURES………………………………………………………..……....i

LIST OF ABBREVIATION…………………………………………….…………ii

ABSTRACT…………………………………………………………….……….....iii

Chapter I INTRODUCTION……………………………………...…………..…01 - 04

* 1. General Introduction with background
  2. Objectives

Chapter II MATERIALS AND METHODS

2.1.Study area and duration…………………………………………...05

2.2. Study population …………………………………………………05

2.3 Data collection. ……………………………………………………05

2.4. Postmortem procedure ….……………....…………….…………..05

2.5Data entry and statistical evaluation...……....………………….…06

Chapter III RESULT

3.1.Proportionate prevalence of colibacillosis and salmonellosis……..07

3.2. Post-mortem findings……………………………………………...09

3.3. Drugs prescribed…………………………………………………...10

Chapter IV DISCUSSION………………………………………………………..13-14

Chapter V LIMITATION………………………………………………………….15

Chapter VI CONCLUSION AND RECOMMENDATIONS……………………..16

REFFERENCES……………………………………………………………….….17-20

ACKNOWLEDGEMENTS …………………………………………………........21

BIOGRAPHY……………………………………………………………………...22

**LIST OF TABLE**

|  |  |  |
| --- | --- | --- |
| Table No | Content | Page No |
| Table 1 | Distribution of avian colibacillosis and salmonellosis in commercial poultry according to different factors. | 08 |
| Table 2 | Frequency distribution of different post-mortem lesions due to colibacillosis and salmonellosis in poultry. | 09 |
| Table 3 | Different drugs prescribed for poultry affected by Colibacillosis and Salmonellosis. | 10 |

**LIST OF FIGURES**

|  |  |  |
| --- | --- | --- |
| Figure No | Contents | Page No |
| Figure: 1 | Air sacculitis found in Colibacillosis. | 11 |
| Figure: 2 | Omphalitis found in Colibacillosis. | 11 |
| Figure: 3 | Colibacillosis in Chicken. | 11 |
| Figure: 4 | Degenarated ova found in Salmonellosis. | 12 |
| Figure: 5 | Misshapen ova found in Salmonellosis. | 12 |

**LIST OF ABBREVIATION**

|  |  |
| --- | --- |
| Abbreviation and Symbol | Elaboration |
| % | Percent . |
| *et al.* | And his associate. |
| CVASU | Chittagong Veterinary and Animal Sciences University. |
| APEC | Avian Pathogenic *E.coli* |
| GDP | Gross Domestic Product. |
| DLS | Department of Livestock Services. |
| CRD | Chronic Respiratory Disease. |
| MIC | Minimum Inhibitory Concentration. |

**ABSTRACT**

Colibacillosis and salmonellosis are considered as the most common bacterial diseases of poultry regardless of production types. Post-mortem on 38 chickens (either sick or dead) presented to veterinarians was performed during internship rotation at CVASU (January-February 2017) and UVH, Hathazari (March -April and July -August 2017) for this clinico-epidemiological study to investigate colibacillosis and salmonellosis with the specific aims of evaluating the proportionate prevalence of these diseases in commercial poultry and to describe the frequency of lesions and drugs prescribed against the diseases. Post-mortem lesions and clinico-epidemiological data along with drugs prescribed were recorded in a structured record keeping sheet for each individual case. Farmer’s verbal consent was taken prior to interview. Data obtained through the study were analyzed by STATA-13. Descriptive analysis was conducted. Among the cases 17 was found for colibacillosis and 21 for salmonellosis. Colibacillosis dominated in broiler chickens (76.5%). Salmonellosis was detected in layer chickens (100%). Birds from Nahar Agro Group were found to have more frequency of disease (around 50%).For Colibacillosis commonly observed post-mortem lesions were airsacculitis, omphalitis, pericarditis and perihepatitis. Common lesions produced by Salmonellosis were distended ureter with urate deposition, hemorrhagic liver and follicle, necrotic liver, peritonitis and ascites, white plaque in intestine, degenerated ova and peritonitis. For the treatment of colibacillosis, both single and combined preparation of antimicrobials along with supportive drugs was prescribed against the diagnosed cases.

Proper farm management (for instance ventilation facility, density of birds, good biosecurity, restricted entry, litter management, disposal of dead birds), good hygiene of the farm (for instance clean feed, water, feeder, water trough) should be maintained to reduce the risk of colibacillosis and salmonellosis in poultry farm.As the antibiotic resistance and residue are world-wide concern, treatment protocol with sensitive drugs should be followed.

**Keywords:** Colibacillosis; Salmonellosis; Antibiotics, Clinico-epidemiological study.