**PREVALENCE AND DIFFERENTIAL DIAGNOSIS OF COCCIDIOSIS & NECROTIC ENTERITIS AMONG BROILER BIRDS REGISTERED AT KOTWALI THANA VETERINARY HOSPITAL, CHITTAGONG**

****

**A clinical report submitted by**

**(Shafayat Zamil)**

Roll No: 08/16

Reg. No: 359

Internship ID: A-09

Session : 2007-2008

Report presented in partial fulfillment for the Degree of

Doctor of Veterinary Medicine (DVM)

**Faculty of Veterinary Medicine**

**Chittagong Veterinary and Animal Sciences University,**

**Khulshi, Chittagong-4225**

**March 2014**

**PREVALENCE AND DIFFERENTIAL DIAGNOSIS OF COCCIDIOSIS & NECROTIC ENTERITIS AMONG BROILER BIRDS REGISTERED AT KOTWALI THANA VETERINARY HOSPITAL, CHITTAGONG**

****

A clinical report submitted as per approved style and content

|  |  |
| --- | --- |
| **Signature of Author** **(Shafayat Zamil)**Roll No: 08/16Reg. No: 359Internship ID: A-09,Session : 2007-2008 | **Signature of Supervisor** **(Dr. Paritosh Kumar Biswas)**ProfessorDepartment of Microbiology |

**Chittagong Veterinary and Animal Sciences University, Khulshi, Chittagong-4202**

**INDEX**

|  |  |  |  |
| --- | --- | --- | --- |
| **SL.NO** | **CHAPTER** | **CONTENTS** | **PAGE NO.** |
| 1 |  | ACKNOWLEDGEMENT | i |
| 2 |  | ABSTRACT | ii |
| 3 | I | INTRODUCTION | 1-3 |
| 4 | II | LITERATURE REVIEW | 4-20 |
| 5 | III | MATERIALS & METHOD | 21-27 |
| 6 | IV | RESULTS | 28-30 |
| 7 | V | DISCUSSION | 31 |
| 8 | VI | CONCLUSION | 32 |
| 9 |  | REFERENCES | 33-37 |

**LIST OF THE TABLES**

|  |  |  |
| --- | --- | --- |
| **SL. NO.** | **TABLE TITLE** | **PAG NO.** |
| Table 1 | Growth of poultry in Bangladesh | 1 |
| Table 2 | Differentiation between coccidiosis & necrotic enteritis | 26 |
| Table 3 | Different postmortem findings at aglance | 28 |
| Table 4 | Prevalence of coccidiosis-necrotic enteritis complex among affected birds | 29 |
| Table 5 | Prevalence of coccidiosis-necrotic enteritis complex among different age groups | 29 |
| Table 6 | Prevalence of coccidiosis-necrotic enteritis complex among different flock size | 30 |
| Table 7 | Prevalence of coccidiosis-necrotic enteritis complex among different strain of commercial broiler birds | 30 |

**LIST OF THE FIGURES**

|  |  |  |
| --- | --- | --- |
| **FIGURE NO.** | **TITLE** | **PAGE NO.** |
| 1 | I am doing postmortem examination at TVH | 23 |
| 2 | Caecal coccidiosis-presence of clotted blood within caeca. | 23 |
| 3 | Caecal coccidiosis- thickening of caecal wall and presence of large core of cellular debris | 23 |
| 4 | Mid intestinal coccidiosis | 24 |
| 5 | Mid intestinal coccidiosis-presence of blood within jejunam. | 24 |
| 6 | Presence of orange tainted mucus within gut lumen | 24 |
| 7 | Typical droppings of coccidiosis affected birds | 24 |
| 8 | Necrotic enteritis- presence of undigested feed particles within gut lumen | 25 |
| 9 | Necrotic enteritis  | 25 |
| 10 | Intestinal lumen impact with viscid mucoid mass | 25 |
| 11 | Undigested feed particles in droppings of necrotic enteritis affected birds | 25 |
| 12 | Oocyst of *Eimeria tenella* under microscope | 27 |

**ACKNOWLEDGEMENT**

At first I really thankful to almighty Allah who has given me strength and opportunity to complete the report – prevalence and differential diagnosis of coccidiosis and necrotic enteritis complex among broiler birds registered at Thana Veterinary Hospital.

Completion of any work or responsibility gives nice feelings but the accomplishment of this work as the partial fulfillment of the requirements for the degree of Doctor of Veterinary Medicine(DVM) in (CVASU), not only has given me the pleasure but also given me the confidence to move ahead and showed me a new opening to knowledge. Standing at this opening, it is an honor to revoke the names of the person and the organization I am grateful to.

I would like to extend my gratitude to my supervisor Dr. Paritosh Kumar Biswas, Professor Dept. of Microbiology, Dean FFST. My heartfelt thanks to him for his support and creative directions. I had autonomy to decide my ways with the progress under his persistent feedback.

Special thanks to Dr. Bibek Chandra Sutradhar, Associate Professor, Dept. of Medicine & Surgery, Director of External Affairs for his valuable advice and co-operation. I would like to express my deep sense of gratitude and thanks to Vice Chancellor, Professor Dr. A.S Mahfuzul Bari.

 Author

**i**

**PREVALENCE AND DIFFERENTIAL DIAGNOSIS OF COCCIDIOSIS & NECROTIC ENTERITIS AMONG BROILER BIRDS REGISTERED AT KOTWALI THANA VETERINARY HOSPITAL, CHITTAGONG**

**ABSTRACT**

 A cross sectional study was conducted from 05.05.13 to 03.07.13 at Kotwali Thana Veterinary Hospital in Chittagong Metropolitan Area to determine the prevalence of coccidiosis-necrotic enteritis complex among commercial broiler birds and to make differential diagnosis between these diseases. In the study area overall 168 postmortem cases of broiler birds were observed of which 76 birds were affected with coccidiosis-necrotic enteritis complex. The disease was diagnosed by clinical history, clinical signs, postmortem and microscopic examination. The prevalence of coccidiosis-necrotic enteritis complex among broiler birds was 45.24%. The prevalence was significantly higher in young (52.73%) than adult birds (31.03%). Statistically significant association (p<0.05) observed between prevalence and different age groups. Prevalence also found higher among birds brought from larger flock size (49.23%) and birds of Hubbard classic strain (52.71%). However no statistically significant association (p>0.05) was observed among flock size and different commercial strain. In conclusion, the present study showed that coccidiosis-necrotic enteritis complex is an important disease of commercial broiler birds in the study area and appropriate strategies have to be designed to reduce the effect of the disease.

**Key words:** prevalence, cross-sectional study, statistically significant association, P value.

ii