**GROSS AND HISTOLOGICAL STUDIES ON DUODENUM OF BROILERS**

****

**A clinical report submitted by**

**(SABUJ KANTI NATH)**

Roll No: 2008/58,

Reg. No: 400

Internship ID: D-39,

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**

**GROSS AND HISTOLOGICAL STUDIES ON DUODENUM OF BROILERS**

****

**A Report**

**By**

**(SABUJ KANTI NATH)**

**Roll No: 2008/58, Reg. No: 400**

**Internship ID: D-39, Session : 2007-2008**

Submitted in partial of the requirement for the fulfillment of the degree of Doctor of Veterinary Medicine (DVM)

**Approved as to style and content by**

**Dr. Mohiuddin**

**Assistant Professor**

**Department of Anatomy & Histology**

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

**CONTENTS**

|  |  |  |
| --- | --- | --- |
| **Sl. No** | **Topics** | **Page No** |
| 1. | Acknowledgement | i |
| 2. | Abstract | ii |
| 3. | Introduction | 1-3 |
| 4. | Review of Literature | 4-7 |
| 5. | Method and Materials | 8-11 |
| 6. | Results & Discussion  | 12-17 |
| 7. | Conclusion | 18 |
| 8. | References | 19-21 |

**ACKNOWLEDGEMENT**

The author is ever grateful and indebted to the Almighty God without whose grace it would have never been possible to pursue this study in this field of science and to complete this Clinical report writing for the Degree of Doctor Of Veterinary Medicine (DVM).

The author would like to thanks his reverend and beloved teacher and supervisor Dr. MohiUddin, Assistant professor, Dept. of Anatomy and Histology, Chittagong Veterinary and Animal Sciences University, Khulshi, Chittagong for his valuable advice, suggestions and kind co-operation during the study period.

The author extends his deep sense of gratitude and thanks to Professor Dr.A.S. Mahfuzul Bari, VC of Chittagong Veterinary and Animal Sciences University.

The author expresses his sincere gratitude and gratefulness to DR.NurulIslam, Professor of Dept. of Anatomy & histology , Chittagong Veterinary and Animal Sciences University, Khulshi, Chittagong for his valuable advice, inspiration, cordial co-operation, valuable suggestion during the study period.

The author would like to thanks to the Director of External affairs, Dr. Bibek Chandra Sutradhar , Associate professor, Dept. of Medicine and Surgery, Chittagong Veterinary and Animal Sciences University, for his suggestion.

The author would like to express his heart felt appreciation & thanks to Byajid Hassan (Dhali),Jamirul Islam (Biplob) & MG Alauddin for their kind cooperation during the study period.

**The Author**

i

**ABSTRACT**

We studied anatomy and histology of duodenumof the digestive tract in postnatal growing broiler chickens with regard to their location, shape, size and weight. A group of five chickens, each at day 1 (D1), days 7 (D7), day 12(D12), day 24(D24ss)and days 34 (D34), total 5, were killed, their digestive tracts were dissected and described and shape, size and weight of different segments of duodenum were recorded. Samples of duodenum were prepared and stained with Haematoxylin and Eosin staining technique to study the histology under light microscope. The average length of duodenum were significantly higher in broilers at day 34(145.75µm) than that at day 24(145.2µm), day 12(132.6µm), day 7(127.2µm) and day 1(101.3µm). On the other hand, the width were significantly higher in broilers at day 34(21.24µm) than that at day 24(20.30µm), day 12(19.92µm), day 7(18.50µm) and day 1(17.30µm).In diameter of the muscle also maintain this sequence but villi/mm² are higher at day 1 (no.12) and lower at day 34(no.3) which has reverse relationship to length, width & muscle layer diameter.

**Keywords:** Anatomy, Histology, Duodenum, Postnatal growth, Broiler.

ii