|  |  |
| --- | --- |
| CONTENTS | PAGE NO |
| LIST OF CONTENTS | i-ii |
| LIST OF TABLES | iii |
| LIST OF FIGURES  | iii |
| LIST OF PLATES | iii |
| ACKNOWLEDGEMENT | iv |
| ABSTRACT | v |
| CHAPTER i : INTRODUCTION | 1-4 |
| CHAPTER ii : REVIEW OF LITERATURE | 5-15 |
| **Gastrointestinal parasitism in pig**2.1 Epidemiology 2.1.1 Factors affecting the size of gastrointestinal infection. 2.2 Diagnosis of gastrointestinal parasitism 2.3 Prevalence of gastrointestinal parasitism |  |
| **CHAPTER III : MATERIALS AND METHODS** | 16-18 |
| 3.1 Description of study area and duration 3.2 Selection of animals and survey design  3.2.1 Target animal and age groups 3.2.2 Target sampling3.3 Sample collection and preservation3.4 Examination of sample3.5 Statistical analysis |  |
| **CHAPTER IV: RESULTS** | 22-24 |
| 4.1 Overall infection rate of gastrointestinal parasites.4.2 Sex specific percentage of gastrointestinal parasitic infections. |  |
| **CHAPTER V: DISCUSSION** | 25-28 |
| 5.1 Prevalence of gastrointestinal parasitic infections in pig.5.1.1 Overall prevalence of gastrointestinal parasitic infections.5.1.2 Sex specific prevalence of gastrointestinal parasitic infection.5.2 Limitation of the study. |  |
| CHAPTER VI: CONCLUSION | 29 |
| CHAPTER VII: REFERENCE | 30-34 |

**List of Tables**

|  |  |  |
| --- | --- | --- |
| **Tables** |  **Topics** | **Page no.** |
| Table 1 | Overall infection rate of gastrointestinal parasitic infections | 22 |
| Table 2 | Sex wise prevalence of gastrointestinal parasitic infection | 24 |

**List of Figures**

|  |  |  |
| --- | --- | --- |
| **Figure** | **Topics** | **Page no.** |
| Figure 1 | Location of Study Area | 16 |
| Figure 2 | Design Experimental (at a glance) | 18 |
| Figure 3 | Prevalence of different parasites in the study population | 23 |

**List of Plate**

| **Figure** | **Topics** | **Page no.** |
| --- | --- | --- |
| Plate i | Collection of faecal sample from pig and examine under microscope | 19 |
| Plate II  | Microscopic pictures of gastrointestinal parasitic eggs of pig. (During the study) | 20 |
| Plate III  | Microscopic pictures of oocyst, some unidentified larvae. (During the study) | 21 |

*ACKNOWLEDGEMENT*

*I am ever grateful and very much obliged to the Almighty without Whose grace it would have never 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).*

*I would like to show my deepest sense of gratitude, sincere appreciation and profound regard to my respectable supervisor* ***Dr. Md. Rayhan Faruque****, Professor, Department of Medicine and Surgery, Faculty of Veterinary Medicine, Chittagong Veterinary and Animal Sciences University for his scholastic supervision, valuable advice, affectionate feeling, radical investigation, valuable suggestions and construction criticisms in all phase of this study.*

*I am also very much grateful & would like to show thanks to my respected teacher* ***Dr. Sharmin chowdhury****, Associate Professor, Department of Pathology and Parasitology, CVASU. Without her willingness to provide information & technical co-operation, valuable advice & suggestion, affectionate feeling, radical investigation, this study would not be possible, to complete-successfully.*

*I humbly thankful to my venerable teacher* ***Dr. A. S. M. Golam Kibria****, Assistant Professor, Department of Anatomy and Histology, CVASU, for his valuable advice & suggestion, radical investigation, technical support during this research work.*

*I would also like to express my deep sense of gratitude and heartfelt appreciation to our internship co-ordinator* ***Dr. Bibek Chandra Sutradhar****, Associate professor, Department of Medicine and Surgery, Chittagong Veterinary and Animal Sciences University.*

*I am also grateful to all those who assisted me with this work and all the well wishers for their constructive comments and suggestion for improvement of this report. My sincere thanks also go to the Lab. Technicians and supporting staffs for their help during sample collection and examination in the laboratory.*

*The Author*

**Abstract**

 A cross-sectional study was undertaken to determine the prevalence of gastrointestinal parasitic infestation of pig in Chittagong division, Bangladesh. Fecal samples were collected randomly from 100 pigs between May and August 2013 and examined by routine coproscopical methods. The investigation revealed that the overall prevalence of gastrointestinal parasitic infections was 49% in the study population. Among different gastrointestinal parasitic infections, occurrence *Oesophagostomum dentatum* infection was the highest which was 17% in study population. The second most common parasitic infection was caused by *Ascaris suum* (11%) followed by *Balantidium coli* (7%). The lowest parasitic infections were also recorded for *Hyostrongylus rubidus* (4%)coccidian oocyst *(*4%*) Trichuris suis* (3%) and *Strongyloides ransomni* (3%)*.* However, sex specific prevalence exposed that female pig showed more susceptibility to different gastrointestinal parasitic infections. Occurrence of *Hyostrongylus rubidus* and *Balantidium coli* were found predominant in female pigs than male pigs. On the other hand, occurrence of *Ascaris suum* was slightly higher in male group than female but it was not statistically significant (P>0.05). It could be stated that the current investigation was fresh of its type which will be acted as bench mark for further study in this area. Moreover, as it was a limited study where breed and topographical variation, seasonal pattern of the diseases were not included. Hence, it was suggested further extensive investigation on gastrointestinal parasitism to overcome the limitations of the current study which will assist to determine the important predictors related to such parasitic diseases.

**Key words**: Prevalence, Pig, Gastrointestinal parasitic infestation.