**CASE CONTROL STUDY OF FOOT AND MOUTH DISEASE VIRUS INFECTED CATTLE**

**A clinical report submitted by**

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**Khulshi, Chittagong-4202**

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**This Clinical report submitted as per approved style and content**

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**Statement of candidate**

I, Jotan Kar, declare that this report is submitted in fulfillment of the requirement for the degree of DVM, Faculty of Veterinary Medicine, Chittagong Veterinary and animal Sciences University. It is wholly my work otherwise referenced or acknowledged.

The document has not been submitted for qualification at any other institute.

The Author

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Date…March, 2014

The Author

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**LIST OF ACRONYMS/ABBREVIATION**

|  |  |
| --- | --- |
| **Abbreviation** | **Elaboration** |
| % | Percentage |
| MDA | Melondialdehyde |
| SOD | Superoxide Dismutase |
| TAC | Total Antioxidant Capacity |
| CBC | Complete Blood Count |
| GDP | Gross Domestic Product |
| FAO | Food and Agriculture Organization |
| FMD | Foot and Mouth Disease |
| FMDV | Foot and Mouth Disease Virus |
| NO | Nitric oxide |
| DLC | Different Leucocytes Count |
| EDTA | Ethylene- di amine-tetra acetic acid |
| Hb | Hemoglobin |
| MCH | Mean Corpuscular Hemoglobin |
| MCHC | Mean Corpuscular Hemoglobin concentration |
| MCV | Mean Corpuscular Volume |
| PCV | Packed Cell Volume |
| RBC | Red Blood Cell |
| WBC | White Blood Cell |
| TEC | Total Erythrocyte Count |

**ABSTRACT**

The study was conducted at the Upazila Veterinary Hospital (UVH), Shibpur, Narsingdi and Shahedul Alam Quadery Teaching Veterinary Hospital (SAQTVH) in Chittagong Veterinary and Animal Sciences University (CVASU) during May- August, 2013. Comparative hematological and biochemical parameters of Foot and Mouth Disease (FMD) infected cattle group and healthy cattle were investigated. A case control study was taken where 10 animals were taken as case FMDV infected and 10 animals were healthy which are taken as control. Peripheral blood samples were collected from both infected and healthy groups. The blood sample was analyzed and routine tests were performed. On analysis of infected cattle and healthy cattle it revealed that incase of infected cattle group there is significantly (p<0.05) increase of packed cell volume(PCV), lymphocytes , monocytes and decrease significantly (p<0.05) hemoglobin (Hb), eosinophil ,basophil than the healthy cattle group .The serum sample was also analyzed. In serum sample it revealed that among the biochemical parameters incase of FMD infected cattle group there is significantly (p<0.05) increased of glucose and significantly (p<0.05) decrease of total protein (TP) and calcium (ca) than the healthy cattle group.

**Key words:** FMD, PCV, TEC, DLC

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