**CONFIRMATIVE DIAGNOSIS of a suspected anthrax case By bacteriological and pathological APPROACHES**

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#### CHITTAGONG VETERINARY AND ANIMAL SCIENCES UNIVERSITY

#### KHULSHI, CHITTAGONG-4202

**June 2013**

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**The Author**

CERTIFICATE OF AUTHENTICITY

I myself Md. Abu Azad Siddiki strongly assures that I have performed all works furnished here in this report. Data have been collected from national and international journals, websites and reference materials. All references have been acknowledged duely.

Therefore, I hold entire responsibility of for collection, compilation, preservation and publication of all data accumulated here in this report.

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 **The Author**

 June, 2013

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**Abstract**

Carcass of an 11 month old male calf was submitted to Pathology and Parasitology department of CVASU for diagnosis in 13 February, 2013. The calf died suddenly without showing any clinical sign just after returning from grazing land. Upon postmortem examination the cause of sudden death was tentatively diagnosed as Anthrax and referred for confirmatory diagnosis by bacteriological isolation and histopathology. The necropsy, histopathology and bacteriological examinations were performed according to standard protocols particularly emphasizing on the safety precautions to prevent spread of the infection. Large number of anthrax bacilli in the blood smear was found under microscope using Giemsa and Polychrome Methylene Blue stains. The histological feature of the extracted spleen tissue showed obscured architecture with extensive hemolysis. Besides, large bacilli were readily demonstrated in the microscopic section of the spleen tissue. In bacteriological culture characteristics “medusa headed” colonies were found in both nutrient agar and bold ager plates. Therefore, with some exceptions the gross and histopathological features supported the presumptive diagnosis while bacteriological test completely agreed with the standard characteristics of *B. anthrasis*.

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**Key words:** Carcass, Anthrax, Necropsy, Histopathology, Bacteriological, Giemsa

Polychrome Methylene Blue