# Cortisol concentration in well regulated two **dogs with Cushing’s syndrome treated with trilostane based on Isehara Animal Hospital in Japan**

****

**Tajmima Sultana Mukta**

Roll No: 13/35

Reg No: 00962

Intern ID: 33

Session: 2012-2013

A clinical report submitted to partial satisfaction of the requirements for the degree of

***Doctor of Veterinary Medicine (DVM)***

**Chittagong Veterinary and Animal Sciences University**

**Khulshi, Chittagong, Bangladesh.**

# Cortisol concentration in well regulated two **dogs with Cushing’s syndrome treated with trilostane based on Isehara Animal Hospital in Japan**

****

Approved by:

………….................................………….

**Dr. Mohammad Alamgir Hossain**

Professor

Department of Pathology and Parasitology

Faculty of Veterinary Medicine

**Chittagong Veterinary and Animal Sciences University**

**Khulshi, Chittagong-4225, Bangladesh.**

**September 2018**

**List of Content**

|  |  |  |
| --- | --- | --- |
| **Chapter No.** | **Name of Topics** | **Page No.** |
|  | List of Table | **IV** |
|  | List of Figure | **V** |
|  | List Of Abbreviation | **VI** |
|  | Abstract | **VII** |
| **I** | **Introduction** | **1-2** |
| **II** | **Case Description and Result** | **3-12** |
|  | 2.1: Clinical case  2.2: Physical examination  2.3: Cliniopathologic findings  2.4: Test and other diagnostic investigation  2.5: Treatment and expected outcome of treatment plan  2.6: Problem faced by treating trilostane | **3**  **3**  **4**  **7**  **9**  **12** |
| **III** | **Discussion** | **13-14** |
| **IV** | **Conclusion** | **15** |
| **V** | **Limitations and Recommendations** | **16-17** |
| **VI** | **References** | **18** |
|  | **Acknowledgement** | **19** |
|  | **Biography** | **20** |

**List of Tables**

|  |  |  |
| --- | --- | --- |
| **Table. No.** | **Name of Table** | **Page No.** |
| **1.** | Clinical sings of dogs with Cushing’s syndrome. | **4** |
| **2.** | Frequently encounted clinicopathologic abnormalities in dogs with Cushing’s syndrome. | **6** |

**List of Figure**

|  |  |  |
| --- | --- | --- |
| **Figure No.** | **Figure Name** | **Page No.** |
| **1** | Two Maltase dogs as a sample of case study with Cushing’s syndrome | **3** |
| **2** | Observable clinical signs in dogs | **4** |
| **3** | Lateral radiographic view of the thorax and abdomen showing mild generalized interstitial lung patterns and hepatomegaly | **6** |
| **4** | Cliniopathologic abnormalities in dogs | **7** |
| **5** | Diagnostic algorithm of Cushing’s syndrome. | **7** |
| **6** | Mean RIA plasma cortisol concentration (±2SD) determined before and 1 hour after administration of synthetic ACTH in control in dogs, dogs With spontaneous hyperadrenocorticism and dogs with iatrogenic Hyperadrenocorticism. | **8** |
| **7** | Clinical decision making flow chart. | **9** |
| **8** | Trilostane dosing and monitoring. | **11** |
| **9** | Monitoring the medical treatment of dogs with Cushing’s syndrome. | **12** |

**List of Abbreviations**

|  |
| --- |
| **Abbreviation Elaboration** |
| PDH Pituitary-Dependent Hyperadrenocorticism  ACTH Adreno-Corticotropic Hormone  HAC Hyperadrenocorticism  ALP Alanine phosphatase  ALT Alanine aminotransferase  LDDS Low-Dose Dexamethasone suppression  CNS Central Nervous System  CRH Corticotropin Releasing Hormone  AVP Arginine Vasopressin  POMC Pre-opiomelanocortin  CT Computed Tomography  MRI Magnetic Resonance Imaging |

# Cortisol concentration in well regulated two dogs with Cushing’s syndrome treated with trilostane based on Isehara Animal Hospital In Japan

Tajmima Sultana Mukta ,Intern ID.33,Roll No.13/35,Reg.No.00962

Cell:01778088092,Email: [tajmimasul.cvasu@gmail.com](mailto:tajmimasul.cvasu@gmail.com)

Supervisor: Professor Dr.Mohammad Alamgir Hossain

Chittagong Veterinary And Animal Sciences University

**Abstract**

Approximately 80% to 85% of dogs with naturally occurring hyperadrenocorticism suffer pituitary-dependent hyperadrenocorticism (PDH) which is characterized by over production of ATCH. Early diagnosis and treatment of Cushing’s Syndrome is associated with a decrease in morbidity and mortality. Clinical presentation can be variable and establishing the diagnosis can often be difficult.I report a case of pituitary-dependent hyperadrenocorticism in a 9-years-old and a 10-years-old, female, two pet dogs. The animals were admitted due to polyphagia,, weight gain, polyuria, polydipsia, hair loss, exercise intolerance and panting at rest. On physical examination, abdominal distention, truncal and bilaterally symmetric alopecia, thin hypotonic skin, comedones, bruising,hyperpigmentation and calcinosis cutis on the dorsal midline were observed. Hematologic investigations showed stress leukogram, high serum alkaline phosphatase activity, mild to moderate alanine aminotransferase activity, hypercholesteromia, hypertriglyceridemia and hyperglycemia. Mild generalized intestinal lung patterns and hepatomegaly were detected in radiographs. Bilaterally symmetric normal-sized adrenal were also diagnosed in ultrasonography. Diagnosis of pituitary-dependent hyperadrenocorticism was confirmed with ACTH stimulation test. The two dogs were successfully treated with trilostane and recovered those dogs within 6 months.

**Keywords:** Cushing’sdisease, hyperadrenocorticism,canine, ACTH, polydipsia, polyphagia, polyuria, Trilostane.