PAW HEALTH NETWORK INC.

HYPERADRENOCORTICISM

ABOUT THE DISEASE

The adrenal glands secrete hormones into the bloodstream that are primarily responsible for helping the body respond to stress (glucocorticoids, cortisol) and regulate blood electrolytes (mineralocorticoids, aldosterone).

Hyperadrenocorticism (Cushing's disease) is caused by an over secretion of adrenal hormones which can cause many clinical abnormalities.

There are two types of Cushing's Disease:

- Pituitary-dependent: Most commonly caused by a benign tumor (adenoma) of the pituitary gland
- Adrenal-dependent: Caused by a benign adenoma or malignant tumor on the adrenal glands

Common clinical signs include:

- Panting, restlessness, or anxiety
- Increased drinking, urination, appetite
- Distended (enlarged) abdomen, muscle wasting, thin hair coat
- Recurrent infections (urinary, respiratory, skin)
- Neurologic signs (behavioral changes, disorientation, blindness)

OBTAINING A DIAGNOSIS

Typically, clinical signs and routine laboratory tests can yield a presumptive diagnosis for Cushing's disease. Radiographs (x-rays) and/or ultrasound of the adrenal glands may also be useful if Cushing's is suspected.

For a definitive diagnosis, there are different tests that can be performed in these patients:

- Screening Tests: used to rule out Cushing's disease as a diagnosis
    - Urine cortisol: creatinine ratio (UC:CR)
        - Dogs with Cushing's will have an elevated UC:CR ratio
        - If results of this test are normal, the patient does not have Cushing's
    - Low dose Dexamethasone suppression test
        - Tests how the adrenal glands respond to steroids
        - Patients with Cushing's will not show suppression of the adrenal glands
    - ACTH stimulation test
        - Tests the adrenal response to ACTH, a hormone produced by the pituitary gland
- Differentiating Tests: used after you have confirmed that a patient has Cushing's to differentiate a pituitary-dependent from an adrenal-dependent underlying cause. This test includes:
    - High dose Dexamethasone suppression test

TREATMENT

Typically, Cushing's disease is not life-threatening. Patients being treated for hyperadrenocorticism should be monitored closely for adverse effects.

Patients with pituitary-dependent disease can be treated with Trilostane or Lysodren, drugs that inhibit formation of hormones by the adrenal gland through various mechanisms.

Patients with adrenal-dependent disease may require removal of an adrenal gland in addition to the drugs above.

TIPS FOR SUCCESS

- Patients being treated for Cushing's should be monitored during treatment to ensure that they are not being over-treated, which can cause symptoms of hypoadrenocorticism. Please see Hypoadrenocorticism document for additional information.