

# **SOUTH COAST VET CARE ~ TALKING ANIMALS**

## **CUSHING'S SYNDROME** (*Hyperadrenocorticism*)

Your pet is suspected of having or has been diagnosed with Hyperadrenocorticism (Cushing's Syndrome). This is a condition where a dog is chronically exposed to high levels of the hormone Cortisol. Cortisol is produced by 2 small glands situated near the kidneys known as adrenal glands. The production and release of cortisol from the adrenal glands is controlled by the hormone ACTH. ACTH is produced by a pea-sized gland at the base of the brain called the pituitary gland. In dogs with Cushing's syndrome, cortisol is produced excessively all the time and eventually results in development of clinical signs of the disease.

There are 2 forms of hyperadrenocorticism:

**Pituitary-dependent:** the most common form of the disease (85% of cases) caused by a slow growing tumour in the pituitary gland. The tumour produces large amounts of the hormone ACTH which in turn leads to excess production of cortisol.

**Adrenal-dependent:** occurs when a tumour producing large amounts of cortisol develops in one or sometimes both of the adrenal glands.

**Clinical signs** of the disease include:

- Drinking large amounts of water
- Urinating frequently and a larger amount than usual
- Always hungry
- Have a "pot belly"
- Have thin skin and hair loss
- Develop muscle wasting
- Lethargic

**Diagnosis** of hyperadrenocorticism involves an initial screening blood test. If there are changes seen, such as increased levels of liver enzymes, glucose and cholesterol, a more specific test for Hyperadrenocorticism will be recommended. There are 2 determining tests for Cushing's. One of them is the ACTH stimulation test. This test assesses the capacity of a dog's adrenal glands to produce cortisol. If this test is equivocal a further test may be performed called a Low Dose Dexamethasone Suppression test. An animal without the disease will be able to lower their cortisol after the administration of some glucocorticoid but an animal with Cushing's most likely will not. Some dogs may also require to have an ultrasound to visualize the adrenal glands.

**Treatment** of Cushing's requires reducing the level of cortisol in a dog's blood. Medication is required for life in order to halt and contain the debilitating effects of this syndrome. Given the complexity for this disease regular monitoring is required to assess your dog's progress and well being.

Trilostane is the medication of choice for the treatment of hyperadrenocorticism. Trilostane blocks the synthesis of cortisol by inhibiting an important enzyme which is key to that synthesis. Studies have shown that it is more effective if given in the morning with food. The most common signs of Cushing's syndrome such as increased drinking, eating and urination improve quickly. Skin changes including hair loss and thinning of the skin may take months to improve.

In the early stages of treatment careful monitoring is essential. ACTH stimulation tests, monitoring of their electrolytes and the actual blood cells themselves (via a blood test) are required 10 – 14 days, 4 weeks and 3 months after starting Trilostane. This will required having your dog in hospital for a couple of hours and sometimes the whole day. Regular 3-6 monthly check ups are required for repeat dispensing of this medication.

If you have further questions regarding this condition please do not hesitate to contact us.