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Cushing's Disease in Dogs

Cushing's disease is a condition in which the adrenal glands overproduce cortisol, a hormone that is essential for sustaining life. In normal dogs, this hormone is used by most cells of the body, but is also produced in higher amounts in response to stress. Cushing's is common in dogs over 6 years of age.

If your dog has had routine bloodwork and we discovered an elevation in a liver enzyme called Alkaline Phosphatase, then Cushing's is suspected. This does not indicate that your dog's liver is damaged or working improperly--the enzyme is merely induced by the presence of excessive cortisol in the bloodstream. More tests are necessary to confirm the diagnosis of Cushing's. It can impact the liver later in the advanced stages of the disease, but serious adverse effects are rare.

Symptoms:

Clinical signs include:

- Excessive water consumption and urination.
- Increased appetite and weight gain.
- Enlarged liver and bloated abdomen.
- Weakened tendons leading to possible knee and other injuries.
- Hair loss, thinning and possible balding.
- Weakness, panting and lethargy.



These symptoms, while rarely life threatening, increase over time.

There are two main reasons for the onset of Cushing's Disease. It is important to differentiate between the two because their treatments differ:

1. Pituitary Gland Tumor (85%). This is a usually benign tumor that produces a hormone, which tells the adrenal glands to excrete more cortisol. This is the most treatable form of Cushing's. In advanced cases, neurological signs such as circling, behavioral changes, or seizures can occur as the tumor grows in size, though this is rare.
2. Adrenal Gland Tumor (15%). This is a usually benign tumor of the adrenal gland. If benign, surgical removal cures the disease. Surgery however, is difficult and expensive, with potentially life-threatening post surgical complications. Recently, Trilostane (see below) has been used for this form of Cushings.

Diagnosis:

Several tests are necessary to diagnose, then to differentiate between the two causes of Cushing's. Testing is expensive and only recommended for dogs with more severe symptoms, and only if you are planning on treating your dog. There are 3 tests that cost approx. \$175 to \$200 each to run. Your dog may need one, two or all tests, depending on the results.

Treatment:

Treatment and monitoring costs approx \$400-\$500 for the first 6 months for a 30 lb dog. A drug called Lysodren (mitotane) is used to treat Cushing's. It is a very powerful drug and can have many side effects, primarily digestive issues. We start by treating your dog with a loading dose for 5-7 days, then a maintenance dose given twice weekly life long. There are also potentially life-threatening complications if too much of the drug is administered, so monitoring tests are extremely important.

There are other drugs available for treatment of Cushing's, but their effectiveness does not seem superior to lysodren, and some are more expensive. The drug Trilostane is a newer treatment that is used to treat some dogs with Cushing's disease. It is more expensive, but may be an alternative treatment for dogs with adrenal tumors. As with Lysodren, the dog is reexamined repeatedly during the initial phase of treatment, and blood tests are performed. In many cases, after several months of therapy, the dose may need to be increased.

If you would like to consider treatment for your dog, we will be happy to speak with you. Please call us anytime and one of our veterinarians will go over treatment options and answer your questions and concerns.

A more in-depth discussion may be found on the following website:

www.kateconnick.com/library/cushingsdisease.html



Dog with Cushings Disease



After treatment with Lysodren