Addison’s Disease
(Hypoadrenocorticism)
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What is Addison’s Disease?

Addison’s Disease is also called ‘hypoadrenocorticism’. This is a potentially life-threatening disorder caused by inadequate levels of hormones produced by small glands which are located in the abdomen (the tummy) near the kidneys. The adrenal glands produce two types of hormone that are critical for life:

- Glucocorticoids
- Mineralocorticoids

These hormones circulate through the blood stream and have effects on cells and tissues throughout the body. Dogs or cats with insufficient levels of these hormones can become very unwell.
Glucocorticoids are a natural form of cortisone (steroid). Cortisone is essential for life and must be at the right levels in the body for animals (and humans) to feel well. Steroids improve appetite and have effects on the function of the immune system that fights off infections.

Glucocorticoids can also be used as a drug for the treatment of some diseases (see our Steroid Therapy Information Sheet).

Too little natural circulating cortisone is one of the components of Addison’s Disease (too much circulating glucocorticoid also causes a problem called Cushing’s Syndrome).

Mineralocorticoids are also hormones produced by the adrenal glands. Mineralocorticoids help to control the body’s ‘salt’ concentrations of both sodium and potassium. As with glucocorticoids, too much or too little mineralocorticoid in the body generally results in serious medical problems.

Addison’s Disease occurs when the body has insufficient circulating levels of both glucocorticoids and mineralocorticoids.

What causes Addison’s Disease?

Addison’s Disease results when both of the adrenal glands are damaged. This most commonly occurs when the affected animal’s own immune system, which normally fights off infections, becomes overactive and damages the adrenal glands (so called ‘immune mediated’ disease). Less common causes of Addison’s Disease are cancers or infections that can invade and kill the adrenal gland tissues.

Which animals are predisposed to Addison’s Disease?

Although Addison’s Disease is not very common, it occurs most frequently in young to middle-aged female dogs. Addison’s Disease is considered rare in cats, but the condition has been diagnosed in dogs and cats of all ages and of either sex (including neutered animals of both sexes).

Breeds that appear to be predisposed to Addison’s Disease include Portuguese Water Dogs, Standard Poodles and Bearded Collies, although it can affect any breed and crossbred dogs.

What are the symptoms (signs) of Addison’s Disease?

The signs of Addison’s Disease come on quickly, usually over a few days, although they can also appear over a period of months. Most owners notice that their pet develops several problems at about the same time including:

- Reduced appetite
- Lethargy and weakness
- Vomiting
- Diarrhoea
- Weight loss
- Tremors

In severe cases some dogs will suddenly collapse and develop shock-like symptoms.

What tests are needed to diagnose Addison’s Disease?

The signs of vomiting, diarrhoea, loss of appetite, and weight loss are extremely non-specific – many other conditions such as stomach and intestinal disease, kidney disease and pancreatic disease can cause these symptoms. Further tests are therefore needed to determine the cause of these problems.

Changes that may be noted on blood tests include changes in the salt levels in the blood – an increase in potassium and a decrease in sodium are major findings. However, these changes can also be seen with other disease processes, and if Addison’s Disease is suspected, a specific test is then recommended for confirming the diagnosis – this is called an ‘ACTH stimulation test’.

What treatment is needed if Addison’s Disease is diagnosed?

Initially, most patients with Addison’s Disease have severe dehydration and electrolyte (salt) loss, meaning that they need to be hospitalised for initial treatment and stabilisation.

Once stabilised, patients with Addison’s Disease require long term (lifelong) treatment with hormone replacement, to substitute for the missing mineralocorticoids and glucocorticoids. These drugs can be given at home in the form of tablets or injections.

The amount of medication may need to be changed over time, and frequent blood tests are recommended to monitor the condition and improve the chances of good control of the disease.

If dogs are stressed (for example due to going to boarding kennels, or because of other illness) your vet may guide you to administer some additional steroid therapy.

What’s the prognosis (outlook)?

Once dogs and cats with Addison’s Disease are correctly diagnosed and properly treated, they can live long and happy lives. Treatment is almost always successful and rewarding.

If you have any queries or concerns about Addison’s Disease, please do not hesitate to contact us.