

Addison's disease (hypoadrenocorticism)

Although Addison's disease can be a very serious disease the changes it causes can be very subtle in the early stages. The signs of the disease are variable and often vague. It is important to get an early diagnosis because, with treatment, affected animals can lead a normal and full life.

What is Addison's disease?

Addison's disease occurs when dogs fail to produce enough of the hormone, cortisol and in some cases, the hormone, aldosterone. For this reason, the disease is sometimes called "hypoadrenocorticism" or "hypocortisolaemia".

- Cortisol has hundreds of possible effects in the body. Because cortisol is so vital to health, the amount of cortisol produced by the adrenal glands is precisely balanced. Cortisol's most important job is to help the body respond to stress. In Addison's disease the body is unable to produce enough cortisol and affected animals may become ill at times of stress.
- Aldosterone helps maintain blood pressure and the water and salt balance in the body by helping the kidneys retain sodium and excrete potassium. When aldosterone production falls too low, the kidneys are not able to regulate salt and water balance, causing blood volume and blood pressure to drop.

Causes

Addison's disease is usually caused by damage to the adrenal glands. Most cases of Addison's by the body's own immune system.

Symptoms

The signs of Addison's disease are extremely variable and can be subtle in the early stages. You may be aware that your pet is 'not quite right'.

- Fatigue, muscle weakness
- Loss of appetite and weight loss
- Depressed, lethargic or unwilling to exercise
- Gastrointestinal problems (with vomiting and/or diarrhea) that get better and then recur is a common sign.
- Episodes of collapse or muscle weakness may be reported.
- Increased thirst. If your dog is drinking more (or is suddenly needing to get up in the night to urinate) you should always take them to the vet for a check-up.
- Low blood sugar can be a problem in toy breeds or young dogs.
- Female dogs may miss seasons.

Because the signs progress slowly, they are usually ignored until a stressful event like an illness or an accident causes them to become worse. Sometimes, if the disease is unrecognised, a very severe form develops - this is called an Addisonian crisis. Often this begins with vomiting or diarrhea, but progresses rapidly resulting in collapse and possibly coma. Pets can die without urgent treatment. In some dogs there are no signs at all until an Addisonian crisis develops.

Diagnosis

Addison's disease can be difficult to diagnose. A review of your dog's medical history may make your vet suspect Addison's disease.

Your vet may suspect the disease based on simple blood tests but specific blood tests are needed to confirm the disease.

Treatment

Treatment of Addison's disease involves replacing, or substituting, the hormones that the adrenal glands are not making. Oral steroid tablets (prednisone, prednisolone, dexamethasone) are given to replace cortisol, and Florinef/Fludrocortisone tablets to replace aldosterone. Tablets are given daily to supplement the missing hormones. The doses of each of these medications are adjusted to meet the needs of individual patients.

During an Addisonian crisis, low blood pressure, low blood sugar and high levels of potassium can be life-threatening. Standard therapy involves intravenous injections of hydrocortisone and IV fluids. This treatment usually brings rapid improvement. When the patient can take fluids and medications by mouth, the intravenous treatment is decreased until and maintenance therapy is begun.

With treatment, many dogs will go on to live a normal lifespan. Without treatment the complications can be significant and will seriously affect the quality of your pet's life.