

ADDISON'S DISEASE FACT SHEET

Overview

Hypoadrenocorticism is an uncommon disease in dogs, and it is caused by a deficiency of essential hormones that are made by the adrenal glands.

Also known as Addison's disease, the clinical signs may appear as vague signs of illness that come and go. However, if a dog's hormone levels become critically low, Addison's disease can become an acute and life-threatening condition.

Addison's disease is more common in young or middle-aged dogs, and while either sex can be affected, females may be at an increased risk. After being diagnosed and stabilized with medications, the outcome is very good — provided that you follow your veterinarian's recommendations for continued treatment and monitoring.

Cause

The adrenal glands are small organs next to the kidneys, and the glands produce essential hormones, including glucocorticoid (cortisol) and mineralocorticoid (aldosterone). These hormones regulate life-sustaining functions — including electrolytes, blood pressure, hydration, metabolism and stress responses.

Addison's disease is caused by a lack of cortisol and aldosterone hormones. This deficiency contributes to general signs of illness, and the condition may become life-threatening if the hormone levels drop too low. The most common cause of Addison's disease is hereditary, and it causes the dog's immune system to destroy their adrenal glands.

Less common causes of the disease could come from infection, cancer of the adrenal glands, over-medication during the treatment of Cushing's disease (hyperadrenocorticism) or abruptly discontinuing steroids after long-term use.

Addison's disease is considered "atypical" when only the cortisol hormone is affected, but not aldosterone, which means that the dog's sodium and potassium electrolytes remain unaffected.

Breed predisposition

Standard Poodle
West Highland White
Terrier
Bearded Collie
Great Dane
Portuguese Water Dog
Labrador Retriever

Signs can be vague and non-specific

Lethargy
Loss of appetite
Vomiting
Diarrhea
Weight loss
Increased thirst and urination
Trembling
Weakness
Dehydration

Clinical signs

Addison's disease is known as "the great pretender" because its clinical signs can mimic those of many other diseases.

Addison's disease can also present as an acute medical emergency called an Addisonian crisis. An Addisonian crisis may appear as sudden weakness, severe vomiting, diarrhea and sometimes collapse. If your dog shows any of these signs, they need immediate veterinary care.

Diagnosis

Your veterinarian will perform blood and urine tests to evaluate your dog's illness and look for signs suggestive of Addison's disease, such as electrolyte imbalances in sodium and potassium.

Addison's disease is confirmed with a blood test called ACTH Stimulation. ACTH is a hormone that instructs the adrenal gland to produce cortisol. The test evaluates the adrenal gland's response to a synthetic form of ACTH by measuring cortisol levels before and after the injection.

Occasionally, tests such as X-rays or abdominal ultrasounds may be performed to rule out other causes of illness.

Treatment

Typical forms of Addison's disease require lifelong cortisol and aldosterone supplementation.

Cortisol is supplemented with daily oral steroids, such as prednisone. Aldosterone is supplemented with an injection, such as Percorten or Zycortal, about once per month. Alternatively, an oral medication called Florinef may be used to replace both aldosterone and cortisol.

Your veterinarian will help determine which supplementation is most appropriate for your dog and lifestyle. The goal is to monitor your dog's clinical signs, electrolytes and response to medication, and then your veterinarian will carefully reduce the amount of medications to the lowest effective dose and frequency.

Treatment during an acute Addisonian crisis may include IV fluids and other IV medications such as glucose, medications to protect the GI tract and glucocorticoids after performing diagnostic tests.

Outcome

There is no cure for Addison's disease, and your dog's quality of life depends on lifelong treatment.

With appropriate treatment and monitoring, many dogs will have an excellent prognosis and continue to live normal lives. Otherwise, without treatment, Addison's disease can become potentially fatal or result in a serious medical emergency.

Following your veterinarian's recommendations for ongoing medications and evaluations are critical steps for helping you successfully manage your dog's condition.

We thank Dr Aly Cohen for this information

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Dr. Aly Cohen is an extension veterinarian for the Cornell Richard P. Riney Canine Health Center and a clinical instructor for Cornell's Maddie's Shelter Medicine Program. She also serves as the contract veterinarian for the Ross Park Zoo in Binghamton, New York. Dr. Cohen graduated from the Ross University School of Veterinary Medicine, and her veterinary interests include surgery and emergency medicine. She has two Pomeranians named Mishka and Java.

