

Addison's disease (Hypoadrenocorticism)

What is it?

Lack of mineralocorticoid and glucocorticoid production by the adrenal glands. In rarer cases, it can just be a lack of glucocorticoid production. Both are steroids produced by the adrenal glands that maintain electrolyte and glucose balance. Stress can often bring on signs of the disease, but stress does not cause Addison's disease. Cortisol is the main stress hormone in the body and Addisonian patients don't produce it, so they can't physiologically respond to stress.



What causes it?

Adrenal atrophy usually an immune-mediated destruction of the adrenal glands. Medication can also cause this, specifically lysodren or long term prednisone use. Systemic fungal infections can also rarely cause Addison's disease.

Signs & Symptoms

Signs are vague and Addison's is often called the great imitator because it looks like a lot of other diseases. An Addisonian crisis can look like an intestinal foreign body (vomiting) or kidney failure. General signs are vomiting without diarrhea, general weakness, increased water intake, weight loss. Ultimately these dogs can end up in hypovolemic shock and die.

Prognosis:

Generally good

Breeding implications/genetics:

There is a genetic test for juvenile Addison's for Portuguese Water Dogs. Standard poodles are often affected. Otherwise, the genetic basis is unclear. Due to the serious nature of the disease, affected animals should not be bred.

More Information:

<https://www.vetmed.wsu.edu/outreach/Pet-Health-Topics/categories/diseases/addison%27s-disease>

Testing & Treatment

How is it diagnosed?

Physical exam can give clues. Heart rates are usually low. There may be rear end weakness. The CBC/chemistry profile can also give clues. The sodium/potassium ratio tends to be below 27 as they are hyponatremic and hyperkalemic (low sodium, high potassium levels). They can also be hypoglycemic and hypercalcemic. There is lack of a stress response in the CBC. Definitive diagnosis is lack of cortisol production in response to an injection of ACTH which should tell the adrenal glands to produce cortisol. Baseline cortisol will be below normal and post-injection cortisol levels will still be below normal.

How is it treated?

An Addisonian crisis is an emergency and is treated with IV fluids and steroid injections. They usually respond rapidly to supportive care. Long term maintenance is either with monthly injections of Percorten or daily fludrocortisone. Some dogs require small doses of daily prednisone. Others can get by with receiving prednisone when they are stressed.

This information is not meant to be a substitute for veterinary care.

Always follow the instructions provided by your veterinarian.

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