

Mediated-Hemolytic-Anemia (Previously referred to as AIHA- Autoimmune Hemolytic Anemia)

Overview

The red blood cells serve the crucial function of carrying oxygen to the cells in the body and picking up carbon dioxide. **Anemia** is a condition that arises when the number of red blood cells falls below normal values, or the red blood cells function improperly. There are many diseases and conditions that can cause [anemia in dogs](#). A low red blood cell count can be the result of blood loss, the destruction of the red blood cells, or an inadequate production of new red blood cells.

When your dog has IMHA, it means his immune system destroys its own red blood cells. Your dog's body still produces red blood cells in the bone marrow to replace the destroyed cells, but once they are released into circulation, the immune system mistakenly recognizes them as something foreign, like a virus or infection, and destroys them. This condition is also referred to as autoimmune hemolytic anemia (AIHA).

Causes

There are two forms of IMHA: **primary** (or idiopathic), and **secondary** IMHA.

With primary IMHA, your dog's immune system mistakenly produces antibodies that attack its own red blood cells. This is the most common cause of anemia in dogs.

With secondary IMHA, the surface of your dog's red blood cells is modified by an underlying disease process, drug, or toxin. Your dog's immune system identifies the modified red blood cells as something foreign and destroys them. When too many red blood cells are destroyed and not replaced quickly enough by bone marrow, the patient becomes anemic. Secondary IMHA can be triggered by a variety of conditions, such as:

- Cancer
- Infection
- Blood parasites
- Drug reactions
- Snake bites
- Exposure to certain chemicals and toxins
- Bee stings or other allergic reactions

Symptoms

Symptoms may include:

- [Pale gums](#)
- Acting tired, weak, or listless
- Shallow or rapid breathing
- Faster than normal pulse
- Lack of appetite
- Weight loss
- Black/Tarry stools
- Eating dirt

These symptoms can vary from dog to dog and depend upon the underlying cause of IMHA. In some situations (mild or early IMHA), your dog may present no signs at all!

Diagnosis

When a dog is anemic, it is important to identify the underlying cause. Your veterinarian may recommend particular tests, depending on your pet's symptoms and history. These tests may include:

- A complete blood count to identify if your dog is anemic, and, if so, to determine whether or not his body is responding to the anemia by producing new red blood cells
- A reticulocyte count to identify if your dog's body is responding to the anemia by making new red blood cells
- A blood film to look for parasites and blood cell characteristics
- Chemistry tests to evaluate kidney, liver, and pancreatic function, as well as sugar levels
- Electrolyte tests to ensure your dog isn't dehydrated or suffering from an electrolyte imbalance
- Urine tests to screen for urinary tract infection and other disease, and to evaluate the ability of the kidneys to concentrate urine
- Fecal analysis to evaluate for intestinal parasites
- Patient-side screening for vector-borne disease
- Specialized tests that can help identify underlying infectious disease (e.g., various

titers, PCR testing)

Treatment

Treatment of IMHA depends on the severity of the condition. Your veterinarian will determine whether your dog needs intensive care or can be treated as an outpatient. Treatment often includes a variety of drugs and close monitoring of your pet's vital signs and laboratory values. With secondary IMHA, treatment of the underlying cause is critical for recovery. Your veterinarian will recommend blood and other diagnostic tests including radiographs and ultrasound to try to determine if your pet's IMHA is primary or secondary.

Your veterinarian may also recommend you see a specialist to help outline the best treatment plan possible, particularly if your dog requires 24-hour monitoring or specialty testing. The prognosis of a dog diagnosed with IMHA is dependent upon the underlying cause, the severity of disease, and the stage at which the disease is diagnosed. Your veterinarian can best help you understand your pet's prognosis based on his specific diagnosis, overall health, and history.

If you have any questions or concerns, you should always visit or call your veterinarian – they are your best resource to ensure the health and well-being of your pets.