



IMMUNE-MEDIATED HEMOLYTIC ANEMIA

ABOUT THE DISEASE

Anemia is a general term used when a patient has a lower number of red blood cells in their bloodstream. **Immune-mediated hemolytic anemia (IMHA)** is a disease more common in canine patients where the body's own immune system destroys red blood cells.

This immune destruction is classified into two categories:

- Primary – no identifiable cause (genetic, spontaneous, etc.)
- Secondary – caused by some other factor (cancer, vaccines, medications, etc.)

The destruction of red blood cells can occur in two locations:

- Intravascular – inside of the blood stream
 - Patients often develop clinical signs very rapidly and usually have a poor prognosis.
- Extravascular – outside of the blood stream, typically within the spleen and liver
 - Patients often develop clinical signs a bit slower, are usually more stable, and have a bit better prognosis.

Symptoms are often related to the speed and severity at which patients destroy their red blood cells. Signs such as general weakness, pale gum color, labored breathing, yellow-tinted skin/gum color (icterus/jaundice) and/or a dark red/brown urine ("port wine urine"), collapse, and/or death.

IMHA often develops **with immune-mediated thrombocytopenia (IMTP)**, a spontaneous destruction of blood platelets (responsible for clotting blood). Please see the [Immune-Mediated Thrombocytopenia](#) document for additional information.

OBTAINING A DIAGNOSIS

A simple blood count can identify an anemia, but a few specific tests are required to identify **IMHA**. Patients will often have a blood slide test performed called a saline autoagglutination test, which helps identify an abnormal clumping behavior typically only seen with **IMHA**. This is often verified with a microscopic evaluation of red blood cell appearance as well.

Finally, some patients will have a Coombs' Test to check for a specific antibody in the blood, which is performed for final verification. However, an outside reference lab is needed for this test, which may delay a confirmation of diagnosis.

TREATMENT

The goal of all **IMHA** therapy is to suppress the immune system's destruction of red blood cells. Treatment is often elected based upon stability at the time of diagnosis.

Most intravascular **IMHA** patients are unstable and require hospitalization with intravenous (IV) fluid therapy, and sometimes oxygen therapy with general supportive care.

All patients are managed with glucocorticoids (steroids) to suppress the immune system. In more severe cases, patients may have other immune medications added such as azathioprim, cyclosporine, or cyclophosphamide.

Blood transfusions are controversial, but at times necessary.

Most patients are placed on anticoagulation medications (blood thinners) to help prevent serious signs of blood clots.

TIPS FOR SUCCESS

- **IMHA** is very serious and often life-threatening.
 - Patients that respond in the first week of treatment often do well in the long term.
- Give medications exactly as directed, and do not alter the dose of medications without explicit instructions.
 - If there is concern about negative drug effects, contact a veterinarian, and do not abruptly stop medications.
- Even once in remission, this disease can recur spontaneously, so be sure to observe closely for symptoms.