

Is Your Middle Aged Dog at Risk for This Complex Condition That Requires Medical Treatment?

This autoimmune problem that shows up as excessive bruising is part of a condition where your pet's immune system destroys its own blood platelets. Traditional vets claim there's no known cause, but those of us in the holistic community suspect otherwise. What you need to know.

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STORY AT-A-GLANCE

- If an animal has immune-mediated thrombocytopenia, or IMT, it means the blood platelets are being destroyed by the body's immune system. IMT is seen primarily in dogs, and almost never in cats
- Blood platelets are very important types of blood cells. They not only help blood to clot and seal holes in leaking blood vessels, they also produce biochemicals that make permanent repairs to those holes
- The exact cause of IMT is unknown, however, the condition can be triggered or exacerbated by vaccines, especially bacterins (such as leptospirosis and Lyme vaccines) and adjuvanted killed vaccines (such as the rabies vaccine)
- Most of the symptoms of IMT are bleeding-related, with spontaneous bruising being one of the most common
- Immune-mediated thrombocytopenia is a complex condition that varies from patient to patient, so treatment must be individualized. Most pets with IMT can live normally if they respond well to medical treatment

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Immune-mediated thrombocytopenia (IMT) is a condition in which the body's immune system destroys its own blood platelets. IMT is primarily a disease of middle-aged dogs, and while any breed can be affected, Poodles, Cocker Spaniels, and Old English Sheepdogs are predisposed. The disease is quite rare in cats.

The Job of Blood Platelets

Platelets are very important types of blood cells that are produced from bone marrow. They help blood to clot by travelling to damaged areas of blood vessels, where they collect and bind together, forming a small plug or patch that seals the hole in the leaky blood vessel. While they are performing this important function, the platelets also release a number of biochemicals that create a permanent seal to repair the tear in the blood vessel.

In a healthy pet's body, platelets do their thing each time they discover small bleeds and normal wear and tear on blood vessels. In this way, they preserve the integrity of the vascular system.

There are anywhere from 200,000 to 500,000 platelets traveling through an animal's circulatory system at any given time, but only 20,000 to 50,000 platelets are actually needed to prevent spontaneous bruising and bleeding. About one-third of circulating platelets are stored in the spleen, waiting to be called into action if necessary. When those stored platelets get too old to do their job efficiently, the spleen sends them through a pretty neat recycling program.

When a small bleed inside a pet's body doesn't receive the attention from blood platelets that it needs, it quickly becomes a large bruise. Spontaneous bruising from normal wear and tear on the body is one of the signs of either not enough platelets, or poorly functioning platelets.

How the Immune System Destroys Blood Platelets

Once in a while an animal's immune system mistakes blood platelets for foreign invaders. When this occurs, it sets off a destructive series of events.

First, the immune system sends antibodies to coat the platelets. The spleen interprets the coated platelets as candidates for recycling and starts removing them at a rate much higher than the normal platelet removal rate.

The cells in the bone marrow that produce platelets react to the situation by getting larger and growing in number, so that they can meet the increased demand for platelet production. The platelets now being produced by the bone marrow, called stress platelets, are actually larger and more effective than their normal counterparts.

However, while all of this is going on, the immune system is continuing to destroy platelets. If antibody levels are very high, the platelets may only survive minutes or hours after production.

It's very hard to predict how the disease will act from one patient to the next because there are so many variables involved.

Causes of IMT

Most traditional veterinarians believe immune-mediated thrombocytopenia is idiopathic, meaning the cause is not known. However, those of us in the holistic veterinary community suspect that like most immune-mediated diseases, there is a trigger that causes a problem with the immune system.

What most holistic veterinarians agree on is that while the exact cause of IMT may not yet be identified, the condition can be triggered or exacerbated by vaccines — particularly bacterins like the leptospirosis and Lyme vaccines — as well as killed vaccines that contain very strong immune-stimulating adjuvants, for example, the rabies vaccine.

Sometimes it's a vaccine alone that triggers an immune system problem in a pet, but more often, it's vaccinations coupled with medications, environmental toxins, perhaps a poor-quality diet, and/or other lifestyle stressors. And while sometimes an adverse vaccine reaction is immediate, more often an animal's immune system reacts to cumulative vaccinations over a period of months or years. That's why I strongly encourage pet owners to avoid all unnecessary vaccines and revaccinations.

Symptoms and Diagnosis

Most of the clinical signs of IMT are bleeding-related, with spontaneous bruising being one of the most common. Other symptoms can include lethargy, weakness, an increased respiratory rate, bleeding from the mouth or nose, pale gums from anemia, or dark, tarry stools that indicate the presence of blood in the GI tract. Less common signs are breathing difficulties, including a significantly increased respiratory rate, as well as sudden death.

Diagnosis of IMT involves ruling out all non-immune related causes and other primary conditions that have thrombocytopenia or low platelet count as a secondary condition, which in dogs include viral, parasitic, fungal, and bacterial diseases as well as certain types of cancer and the administration of certain drugs.

Diagnostic tests will typically include a complete blood count (CBC), as well as a blood chemistry profile, coagulation testing, titers for infectious diseases, and an antinuclear antibody (ANA) test to evaluate the immune system's response against DNA. A urinalysis, chest x-rays, and an abdominal ultrasound may also be performed.

Treatment Options

Immune-mediated thrombocytopenia is a complex condition that varies from patient to patient, so the treatment is individualized. Often aggressive treatment is needed when the disorder is initially diagnosed. Many pets must be hospitalized because they're critically ill at this time.

The immune system assault on blood platelets must be controlled very quickly, which unfortunately means using immunosuppressive drugs like steroids, azathioprine, and cyclosporine, among others, to save the animal's life. If anemia is present, a blood transfusion will be required. Supportive care in the form of oxygen and fluid therapy may also be given.

Underlying diseases must be identified and treated to help control the IMT and lower the risk of recurrence. Longer term, the pet will require immunosuppressive and other drugs based on symptoms. It's not unusual for a dog to be on such drugs for several months after diagnosis.

Supportive herbs, such as milk thistle, can be used at this time to help reduce stress on the organs of detoxification. Once the patient is stable, many integrative veterinarians will incorporate integrative protocols to help the immune system rebalance itself.

Any drugs or vaccines received prior to developing IMT should be avoided for the rest of the animal's life. I also recommend that any dog that has recovered from IMT be titered for all vaccines, including rabies, for the rest of his or her life.

Prognosis

Most dogs with IMT can live normally if they respond well to medical treatment. Generally speaking, if a dog does well during the acute phase of the disease and throughout treatment, he has an excellent chance of doing well long-term.

Many dogs can be weaned from all medications as their condition improves, but occasionally a dog may require intermittent drug therapy for the rest of his life. These dogs are excellent candidates for integrative medical care, which can help reduce flare-ups of autoimmune reactions and reduce the need for long-term drug therapy.