

# Metropolitan Veterinary Hospital

## Akron Veterinary Internal Medicine/Oncology Practice

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### Immune-Mediated Thrombocytopenia

Client Handout

Your pet has been diagnosed with immune-mediated thrombocytopenia, or ITP. This disease causes a decrease in the body's platelets. Platelets are necessary in forming the initial clot to stop bleeding after tissue injury and maintain blood vessel integrity by forming a platelet "plug" when they are damaged. An animal's normal platelet count is 150,000 to 500,000. When an animal's platelet count drops below about 40,000, spontaneous bleeding can occur.

**Cause:** ITP is an autoimmune disorder in which the body's immune system attacks and destroys its own platelets. It may be initiated by certain drugs, infections, or, rarely, vaccinations. Often, no cause is determined. It may occur in conjunction with other diseases as well, such as autoimmune hemolytic anemia (Evan's Syndrome, where both platelets and red blood cells are destroyed), systemic lupus erythematosus, or certain cancers, such as lymphoma. The platelets are lost one of two ways: 1.) they are consumed by immune cells in the spleen, liver, or bone marrow, or 2.) platelet production is decreased when immature platelets in the bone marrow are destroyed.

**Clinical Signs:** ITP is relatively common in dogs and rare in cats. The average age of onset is 5 to 6 years, and females are most commonly affected. In dogs, common clinical signs are nose bleeds, bruising of the skin and gums, black tarry stools, blood in the urine, vomiting blood, weakness and lethargy. Dogs may have an enlarged spleen or liver, and retinal hemorrhages. Cats rarely present for bleeding; they are usually lethargic, weak, and have decreased appetite.

**Diagnosis:** ITP is diagnosed after ruling out all other causes of decreased platelets. Other bleeding disorders must be ruled out, as well as diseases that cause decreased platelet production (such as lymphoma). Occasionally, a bone marrow aspirate is performed to evaluate the platelet precursor cells. Often, a presumptive diagnosis is made based on clinical signs and the patient's response to the therapy for ITP.

**Treatment:** The primary goal of treatment is to stop the bleeding and restore normal platelet numbers. The drugs of choice initially are steroids such as prednisone or dexamethasone. These drugs suppress the body's immune system, stopping platelet destruction. Patients receive high doses initially and are then tapered to lower doses every other day, or even less frequently. Side effects of steroids include increased urination, increased food and water consumption and panting. Platelet counts usually return to normal in about 1 week, but some individuals may take as long as 1 month or more. Animals that respond poorly to prednisone alone may also be treated with other immunosuppressive agents, including some chemotherapy drugs. In rare cases, splenectomy may be necessary to resolve the disease. Spaying is recommended for intact females since hormones may influence the response to therapy.

**Prognosis:** The prognosis for canine ITP is generally good. Approximately 50% of dogs have only 1 episode and respond well to therapy. In 20% of ITP cases, hemorrhage is severe enough to be fatal. Often, pets require long-term drug therapy to control their condition. The prognosis for ITP in cats is guarded, as the disease is often associated with feline leukemia virus infection.