

Long-Term Outcome of Primary Immune-Mediated Thrombocytopenia

Lisa Singer, VMD, DACVIM
Veterinary Specialist Services
Queensland, Australia

In the Literature

Simpson K, Chapman P, Klag A. Long-term outcome of primary immune-mediated thrombocytopenia in dogs. *J Small Anim Pract.* 2018;59(11):674-680.

FROM THE PAGE ...

Immune-mediated thrombocytopenia is a life-threatening disease and one of the most common causes of canine thrombocytopenia. In primary immune-mediated thrombocytopenia (PIMT), autoantibodies adhere to the surface of blood platelets, resulting in platelet destruction by the immune system. Dogs have a high tendency for life-threatening, spontaneous hemorrhage when the platelet count drops below $30 \times 10^9/L$ to $50 \times 10^9/L$. This is clinically seen as petechiae or ecchymoses on the skin and melena from the intestinal tract. Initial first-line treatment should be immunosuppressive therapy with glucocorticoids.

This study retrospectively evaluated the incidence of relapse, the risk factors associated with relapse, and whether the indefinite use of medications influences risk for relapse in dogs with PIMT. Review of records from 2007 to 2016 identified 45 dogs with presumed PIMT, 89.6% of which survived until discharge and 31% of which relapsed after discharge.

Initial treatment included prednisone (mean dose, 2.1 mg/kg q24h) with or without vincristine. Additional immunosuppressive agents included azathioprine, mycophenolate, or cyclosporine. A previous study has shown no difference in outcome or relapse based on glucocorticoids alone or compared with another agent.¹ In this study, use of vincristine, a second immunosuppressive agent, or indefinite medication did not reduce relapse rate.

The median time between discontinuation of prednisone and relapse was 79 days. Of the dogs that relapsed, 50% went on to have another relapse. Previous studies have reported relapse rates from 9% to 47%.^{1,2} Most dogs in this study relapsed while still on medication.

Another study reported that melena was a negative prognostic indicator and that dogs were more likely to need a blood transfusion.² That study found that patients were twice as likely to relapse if they had received a blood transfusion. Overall, the response time after relapse is rapid and prognosis for recovery remains good.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Indefinite immunosuppressive treatment or the addition of a second drug aside from glucocorticoids to treat PIMT in dogs does not reduce risk for relapse.
- 2** Higher relapse rates have been noted in patients requiring blood transfusion while in the hospital as compared with those that did not.
- 3** Most relapses occur within 3 months of discontinuing glucocorticoids. Patients should have platelet counts checked regularly—minimally for the first year after remission and discontinuation of medications.

References

- Scuderi MA, Snead E, Mehain S, Waldner C, Epp T. Outcome based on treatment protocol in patients with primary canine immune-mediated thrombocytopenia: 46 cases (2000-2013). *Can Vet J.* 2016;57(5):514-518.
- O'Marra SK, Delafordade AM, Shaw SP. Treatment and predictors of outcome in dogs with immune-mediated thrombocytopenia. *J Am Vet Med Assoc.* 2011;238(3):346-352.