

Leflunomide & Immune-Mediated Disease

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In the Literature

Sato M, Veir JK, Legare M, Lappin MR. A retrospective study on the safety and efficacy of leflunomide in dogs. *J Vet Intern Med.* 2017;31(5):1502-1507.

FROM THE PAGE ...

Leflunomide is an immunomodulatory drug that has been used as primary and adjunctive therapy for naturally occurring immune-mediated and inflammatory diseases, specifically colorectal polyps in miniature dachshunds and immune-mediated polyarthritis.^{1,2}

This study retrospectively evaluated the safety and efficacy of leflunomide (0.8-4.3 mg/kg q24h) in 92 dogs treated between the years 1995 and 2014. Median duration of treatment was 23.5 weeks (range, 1-208 weeks). Various adjunctive therapies included prednisolone, mycophenolate, cyclosporine, and azathioprine. The most common diseases treated were immune-mediated polyarthritis, immune-mediated thrombocytopenia, and immune-mediated hemolytic anemia. Adverse events possibly attributable to this drug were observed in 11/92 dogs (12%) and included diarrhea, lethargy, unexplained hemorrhage, thrombocytopenia, and increased liver enzymes. After a 30% to 50% dose reduction or drug discontinuation, several adverse events resolved.

Previous studies have reported a starting dose of 3-4 mg/kg q24h.³ The median starting dose was higher in dogs with adverse events (2.9 mg/kg q24h) than in dogs without adverse events (1.6 mg/kg q24h). The overall drug response rate was 70.5%; for dogs receiving leflunomide as monotherapy, drug response rate was 81.8%.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Leflunomide is well tolerated when used in conjunction with prednisolone.
- 2** Leflunomide at lower starting doses (eg, 2 mg/kg q24h) when used as an adjunctive therapy may be equally clinically effective in the treatment of immune-mediated diseases as compared with its use at higher doses (3-4 mg/kg q24h).
- 3** Leflunomide dose reductions of 30% to 50% or drug discontinuation can resolve most adverse events. Leflunomide may rarely cause hemorrhage after 6 weeks or more of drug administration, in which case the drug should be discontinued immediately.

References

1. Colopy SA, Baker TA, Muir P. Efficacy of leflunomide for treatment of immune-mediated polyarthritis in dogs: 14 cases (2006-2008). *J Am Vet Med Assoc.* 2010;236(3):312-318.
2. Fukushima K, Eguchi N, Ohno K, et al. Efficacy of leflunomide for treatment of refractory inflammatory colorectal polyps in 15 miniature dachshunds. *J Vet Med Sci.* 2016;78(2):265-269.
3. Gregory CR, Stewart A, Sturges B, et al. Leflunomide effectively treats naturally occurring immune-mediated and inflammatory diseases of dogs that are unresponsive to conventional therapy. *Transplant Proc.* 1998;30(8):4143-4148.