

Open Veterinary Clinical Trial: COMPLEMENT ACTIVATION IN CANINE IMMUNE-MEDIATED HEMOLYTIC ANEMIA



Purpose: Immune-mediated hemolytic anemia (IMHA) is a common immune-mediated disease in dogs that can be fatal. In IMHA, the immune system attacks the dog's own red blood cells. This process can occur within the blood stream due to the action of a group of proteins called complement. In IMHA, activated complement proteins essentially punch holes in the red cell membrane, causing it to rupture. In specific forms of human hemolytic anemia, treatment with complement inhibitors has revolutionized therapy and saved lives. Ultimately, we hope to enable veterinarians to treat canine IMHA with complement inhibitors. To achieve that, we first need to determine which dogs with IMHA have high levels of complement activation.

Aims: We aim to determine the prognostic value of detecting complement activation in dogs with IMHA. We will use a laboratory test to detect the final active protein complex of the canine complement cascade in blood samples from dogs with IMHA. We will compare the amount of this active complex in dogs with IMHA to the amount in healthy dogs. This information will allow us to identify patients that may benefit most from complement inhibition and to determine if complement protein levels are associated with outcome.

Enrollment criteria: We will collect blood (serum tube) from any dog diagnosed with primary IMHA. The diagnosis of IMHA will be based on the presence of anemia (PCV<37%) AND at least one of the following: positive in-saline agglutination test, OR a positive Coombs' test, OR moderate-marked spherocytosis identified by a clinical pathologist. Dogs with an underlying disease process (e.g. cancer) causing the IMHA will be excluded.

Client compensation: The testing will be performed free of charge, but no other compensation will be offered to clients.

Owner financial responsibility: All other tests, procedures and treatment will be the responsibility of the owner.

PRINCIPAL INVESTIGATORS

Dr. Robert Goggs

Dr. Erica Behling-Kelly

CONTACT INFORMATION

607-253-3060

[vet-research@cornell.edu](mailto:veter-research@cornell.edu)



Cornell University
College of Veterinary Medicine