Title: Variations in Caudal Vena Cava Diameter with Age

Investigators:
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Study description:

Some large breed dogs have a congenital abnormality in the blood supply to the liver called an intrahepatic portosystemic shunt (IHPSS). Because the liver is underdeveloped, affected dogs are smaller than normal and may have gastrointestinal or neurologic signs. Treatment of this disease can be achieved without surgery though it requires placement of a vascular stent in one of the main blood vessels in a dog’s abdomen. The size of the stent is important for success of the procedure.

It is assumed that the size of this vessel changes as dogs grow, so the procedure is not typically performed until at least 6-8 months of age. By this point, the liver may have less ability to grow and normalize with treatment so it would likely be more ideal to perform the procedure as early as possible.

With this study, we seek to determine how much the size of this blood vessel changes over time in normal growing dogs from 2 months to 14 months of age. We hope to determine the earliest possible age that the blood vessel size stabilizes so treatment can be performed at the earliest and safest time point.

Inclusion criteria:
Ten large breed dogs from 8 weeks to 6 months of age that are determined healthy based upon history and physical examination will be eligible for participation. Ultrasound examinations will be performed every other month from the time of the puppy’s enrollment until the puppy reaches 14 months of age. A physical exam will also be performed at each timepoint. Interested owners must be willing to sign a consent form and agree to return with their dog to the Veterinary Teaching Hospital for designated rechecks.

The costs of the ultrasound and subsequent analysis of the images will be paid for by the study. Dogs that complete participation in the study will also receive 6 months of heartworm preventative as an incentive for participation.

Duration of study:
This study is currently OPEN.

Potential benefits to veterinary medicine:
Results from the study will allow us to optimize timing of the treatment of IHPSS in affected large breed dogs to provide the best possible outcomes.