

Persistent Right Aortic Arch (PRAA) in Dogs

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In the fetus there are blood vessels that at first may serve a function, but then naturally deteriorate as the embryo grows. Occasionally, vessels in the chest cavity, called the aortic arches, will fail to disappear. The right aortic arch passes near the esophagus. If this blood vessel persists in the newborn, the esophagus is trapped between it and the heart. This inhibits the growth and function of the esophagus, thus restricting food passage to the stomach.

What are the symptoms?

Usually, symptoms appear before six months of age and include stunted growth and regurgitation immediately after eating. The affected puppy may also experience difficulty breathing if regurgitated food is aspirated, or if the trachea is also restricted.

What are the risks?

Without treatment, growth will be severely stunted, as the puppy will be unable to digest adequate amounts of food. Severe respiratory distress such as pneumonia may also develop.

What is the management?

Surgical removal of the stricture (narrowing) caused by the persistent right aortic arch is the preferred treatment. It is important to perform surgery early in the disease, before permanent growth damage has occurred.

Many affected puppies will not grow at a normal rate and will be smaller than their littermates.

