VETERINARY TECHNICAL DATASHEET

Acute Respiratory Distress Syndrome, (ARDS); mutation originally found in Dalmatian

WISDOM™ HEALTH

Mutation Found In :Dalmatian

Disorder Type

- Lung

Disease Severity

- Severe

Background

Acute respiratory distress syndrome is a rare, life-threatening disorder that causes acute, severe respiratory failure that is unresponsive to treatment.

Key Signs

- Acute respiratory distress

Clinical Description

Clinical signs of this disease emerge very acutely in dogs under one year of age. Early signs of the disease include noisy respiration, increased respiratory rate, vomiting, and weight loss. The disorder is unresponsive to treatment and quickly develops into severe respiratory distress that can be accompanied with other severe conditions, such as pneumomediastinum, hiatal herniation, or gastroesophageal intussusception. The disorder is unresponsive to treatment and affected dogs die or are euthanized between 1-6 weeks after the onset of respiratory signs.

Some affected dogs have been reported to exhibit other developmental anomalies such as hydrocephalus or renal aplasia. These anomalies are not directly linked to the respiratory signs and affected dogs usually grow and develop normally until the onset of respiratory signs.

Mode of Inheritance

- autosomal recessive

Gene Name

- ANLN

Next Steps

All described cases of the disorder have died or were euthanized due to unresponsiveness to treatment and clinical severity. Treatment should be targeted at maintaining fluid balance and oxygenation. Anti-inflammatory treatment may be of help. The prognosis is poor.

References

Holopainen S, Hytönen M, Syrjä P, Arumilli M, Järvinen A, Rajamäki M, Lohi H. ANLN truncation causes a familial fatal acute respiratory distress syndrome in Dalmatian dogs. PLoS Genet. 2017 Feb 21;13(2):e1006625. doi: 10.1371/journal.pgen.1006625. eCollection 2017.

Järvinen AK, Saario E, Andresen E, Happonen I, Saari S, Rajamäki M. Lung Injury Leading to Respiratory Distress Syndrome in Young Dalmatian Dogs. J Vet Intern Med. 1995 May-Jun;9(3):162-8.