



Preliminary Report

Accession No. 14-L5959

Date Received: 10/07/14

Date Reported: 10/10/14

Client: Division of Water Quality
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Website: <http://www.usu.edu/uvdl>

Owner Name: Division of Water Quality

Animal ID: Drake

Species: Canine

Breed: Labrador Retriever

Sex:

Age:

Case Conclusion

Assay: **Summary**

Morphologic diagnoses

1. Interlobular septal hemorrhages; pancreas
2. Splenic contraction
3. Congestion, moderate, acute; small intestine, liver, lung and kidney
4. Patchy pulmonary edema

Gross and histopathologic examination of body organs/tissues indicates acute cardiovascular collapse (shock), but not a cause. One of three heart measurement ratios used to indicate left ventricular hypertrophy is elevated, but the other two are not. Similarly, the ratio of one of three measurements used to evaluate the circumference of the aortic valve suggests stenosis, but the other two are within normal limits. Taken together, the significance of these ratios is questionable, arguing that the heart is morphologically normal. Causes (among others) of acute cardiovascular collapse include a variety of toxicants (botulism, blue-green algae, carbamates, cyanide, nitrites/nitrates, organophosphates, strychnine, water hemlock, etc.), electric, anaphylactic or other forms of shock, cardiac arrhythmias and grand mal epileptic or other seizures. Samples for Anatoxin-a and microcystin (multiple types) analyses have been forwarded to the California Animal Health and Food Safety (CAHFS) Laboratory, Davis CA. A final report will follow.

Pathology

Assay: **Necropsy Companion Animal**

Pathologist Tom Baldwin

Gross Findings: A 39.4 kg (86.8 lb), adult, neutered male, black Labrador retriever in good body and fair postmortem (submitted frozen) condition is necropsied on 9/7/2014. The stomach contains a moderate amount of brown kibble. Lung lobes are red and ooze fluid when incised (pulmonary edema). Multiple hemorrhages widen septa separating pancreatic lobules. Heart measurements are:

Right atrioventricular valve circumference (RAV) = 12.4 cm

Left atrioventricular valve circumference (LAV) = 10.3 cm

Pulmonic valve circumference (PV) = 7.5 cm

Aortic valve circumference (AV) = 6.0 cm

Total cardiac weight (TCW) = 235.2 g

Left ventricle plus septum weight (LV+S) = 156.4 g

Right ventricle weight (RV) = 50.0 g

No other significant gross abnormalities are noted.

Histopathologic Findings: Significant histopathologic findings are provided as morphologic diagnoses in the above 'Summary' section. No significant histopathologic abnormalities are noted in sections of tongue, esophagus, stomach, large intestine, trachea, left and right ventricular myocardium, skeletal muscle, lymph node, adrenal gland, thyroid and brain.

Outside Laboratory

Results are Pending for Outside Laboratory

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