

ENGELHARDT CONSULTING INC.

TOXICOLOGIC PATHOLOGY AND NONCLINICAL DRUG SAFETY

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Pathology Review of Three Cases of Suspected Trifexis Intoxication


Three Visla puppies were described as having declining health and sudden death following a single dose of Trifexis. The available medical records and pathology reports were reviewed for any potential connection between the mortality and Trifexis administration.

Case 1 (Owner: Jenny Schmitt) was submitted to the University of Georgia Diagnostic Laboratory (Athens, GA) for postmortem examination following a history of lethargy, decreased appetite, dietary indiscretion, vomiting and sudden death. Necropsy findings were suggestive of cardiac failure. Microscopic examination revealed a marked chronic-active myocarditis and endocarditis with fibrosis. The attending pathologist suspected an infectious (bacterial) origin to the cardiac lesions. I agree with this interpretation. This type of cardiac lesion has not been seen with Trifexis in any treatment scenario, included overdose. Therefore, it is my opinion that Trifexis played no role in the development of the cardiac failure that occurred in this dog.

Case 2 (Owner: Scott Neily) was said to have collapse acutely and died. The dog was submitted to the Bronson Animal Disease Diagnostic Laboratory (Kissimmee, FL) for postmortem examination. Necropsy findings included marked locally-extensive lipomatous infiltrates in the right ventricle and interventricular septum. Depots of lipocytes within the myocardium can occur as a developmental anomaly in differentiation during embryogenesis. When extensive, as in this case, the fat deposits can interfere with the cardiac conduction system leading to arrhythmias and, potentially, sudden death. Trifexis has not been described to cause a similar lipomatous lesion in the heart or any other organ in any treatment scenario, included overdose. Therefore, it is my opinion that Trifexis played no role in the death of this dog and that the cardiac lipomatosis led to cardiac failure.

Case 3 (Owner: unknown) was presented to an emergency clinic with dyspnea, tachycardia and arrhythmia. The dog died a few days later. Necropsy findings were suggestive of myocarditis as a cause of death. No further information was available to me for this case.

In summary, there was no indication in Cases 1 and 2 that Trifexis had a role in the death of these dogs. While case 3 is incomplete, the presence of myocarditis at necropsy also decreases the likelihood that Trifexis had a role in the death of this dog.


11/12/13