

Pathology Review of Three Cases of Suspected Trifexis Intoxication

Three Vizsla 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: [REDACTED] 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: [REDACTED] 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: [REDACTED] 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. Necropsy and histopathology examination indicated the presence of myocarditis and lymphadenopathy. Overall findings were quite similar to those present in Case 1, strongly suggesting an infectious origin to the morbidity and mortality.

In summary, there was no indication in these cases that Trifexis had a role in the death of the dogs. In view of the spectrum of lesions present, it is recommended that additional histological stains be prepared to evaluate for the presence of *Haemobartonella* spp. It is possible that an IgM response could have developed during the time of illness. Any residual sera could also be evaluated for antibodies to *Haemobartonella* spp.


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