



All Animal Hospital

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To Whom It May Concern:

Over the Labor Day weekend, handler Derick Scott contacted me about his K9 Nitro not acting normally. As I was out of town, we discussed possible causes of his symptoms and decided to try medication at home and if no improvement was noted, he would be seen on emergency by my colleague Dr. Sonya Bryan. The following day, Nitro was reported to be worse and was taken in to be seen.

Nitro was showing symptoms of rear leg weakness and some mild back pain initially. All blood tests were normal except for a positive Anaplasmosis antibody test. An Anaplasmosis antigen test was submitted to check for active infection and later was returned as negative. Xrays of his spine showed mild narrowing of an intervertebral disc space and Nitro was treated for probable back pain. Nitro improved significantly the next day and was discharged back to his handler on restricted duty.

On September 15th, Nitro returned to the clinic for a recheck exam and to update his vaccinations. He had returned to normal clinically and showed no further evidence of back pain. His handler was advised he could return to regular duty but be mindful of any changes in his back leg function.

On September 16th, Officer Scott called me at my home and stated that he found Nitro in his pen seizing. The seizure was not spontaneously stopping, and he was advised to bring him to the clinic for treatment. I contacted my technician on call who was already at the clinic and advised her to administer an antiseizure medication upon Nitro's arrival if I had not gotten to the clinic yet.

When I arrived at the clinic, Nitro was still in an active seizure after being given one dose of Midazolam to help stop the seizing. His temperature measured at 110 degrees, and we immediately started to attempt to cool him down. I administered 3 more doses of anti-seizure medication without results and finally gave a sedative which ultimately calmed him. Nitro was mentally unaware during this entire time. He was given multiple medications to help decrease adverse effects of such a significant hyperthermic event.

I advised Officer Scott that I believed he likely had a prolonged seizure event, which led to a significant elevation in his body temperature. Nitro had abrasions on his feet that indicated repetitive movement or paddling likely occurring during the seizure. I recommended Nitro be transferred to MSU College of Veterinary Medicine for round the clock care and further diagnostics. I warned that due to the elevated temperature, multiple body systems would be affected, and organ failure could occur. I also advised he be examined by the neurology department at the vet school to help determine the cause of the seizure.



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I spoke with Officer Dustin Tutor over the phone regarding the findings and Officers Scott and Uhiren contacted their superiors who approved transfer to MSU CVM. Nitro was transported with two IV catheters in place and his temperature had normalized before transfer. I was informed after he arrived at MSU that Nitro was euthanized due to his poor prognosis and the cost associated with treatment.

I am unable to give a definitive diagnosis regarding Nitro at this time. It is my opinion that a seizure initiated the overheating versus him getting overheated and seizing due to hyperthermia. Given his illness a couple of weeks prior, it is possible that he had an underlying neurologic disorder that led to weakness and then a seizure. Possibilities of neurologic disorders could include neoplasia, meningitis, or blood clots. Due to his quick response to the initial medical therapy, it is less likely that these two events were related. Nitro was also at the age that we typically see epilepsy symptoms develop. There are no symptoms of epilepsy prior to their first seizure so there would be no way to predict a seizure.

Nitro was one of my favorite K9s to work with and I am extremely sad over his sudden passing. His handler was very diligent in making sure he was performing well and was healthy, as are all officers in the K9 Unit. I know Nitro's loss was an emotional blow to the entire department. If I can answer any questions regarding Nitro, please do not hesitate to contact me.

Respectfully,

Gretchen Ganas DVM